(19)日本国特許庁（ＪＰ）　(12) **公開特許公報（A）**　(11)特許出願公開番号
特開2002－57807
（P2002－57807A）
(43)公開日　平成14年２月22日(2002.2.22)

| (51)Int.Cl.' | | 識別記号 | F I | | テーマコード'（参考） |
|---|---|---|---|---|---|
| H04M | 11/00 | 302 | H04M 11/00 | 302 | 5K024 |
| | 1/00 | | 1/00 | U | 5K027 |
| | 1/2745 | | 1/2745 | | 5K036 |
| | 1/56 | | 1/56 | | 5K067 |
| | 1/57 | | 1/57 | | 5K101 |

審査請求　有　請求項の数20　ＯＬ　（全 14 頁）　最終頁に続く

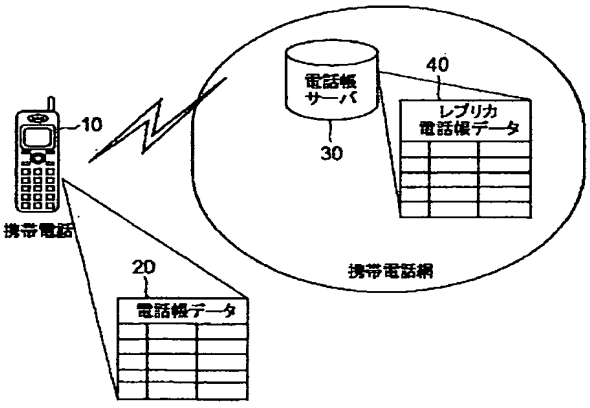
(21)出願番号　特願2000－240065(P2000－240065)
(22)出願日　平成12年８月８日(2000.8.8)

(71)出願人　000004237
日本電気株式会社
東京都港区芝五丁目７番１号
(72)発明者　宮下　重博
東京都港区芝五丁目７番１号　日本電気株式会社内
(74)代理人　100071272
弁理士　後藤　洋介　（外１名）

最終頁に続く

(54)【発明の名称】　携帯電話の電話帳管理システム

(57)【要約】
【課題】　携帯電話内に記憶されている電話帳データを再度入力し直すことなく、同一又は新たな携帯電話に電話帳データを登録することができる方法を提供すると同時に、携帯電話網上に記録された電話帳データを活用して、携帯電話の利便性を向上させる方法を提供する。
【解決手段】　本発明では、電話帳データの消失に備え、携帯電話のデータ通信機能を使用して、携帯電話網上のサーバに当該データを記憶する。更に、そのサーバ上の電話帳データにどの電話番号又はメールアドレスからの着信を拒否するかの情報を記録させ、それに応じて、携帯電話網内で、着信電話の拒否、及びメールの受け取り拒否を行う。



1

【特許請求の範囲】

【請求項１】　個人用電話帳を記録する携帯電話装置と、前記携帯電話装置と通信可能なサーバを含む携帯電話の電話帳管理システムにおいて、

前記サーバが、所定のネットワーク上に配置され、

前記携帯電話装置が、

前記個人用電話帳のデータを前記サーバに送信するよう指示する送信指示手段と、

前記送信指示に応答して、無線により前記個人用電話帳のデータを、前記サーバにアップロードするデータ・アップロード手段とを有することを特徴とする携帯電話の電話帳管理システム。

【請求項２】　請求項１の携帯電話の電話帳管理システムにおいて、

前記携帯電話装置が、

前記サーバに保存されている前記個人用電話帳のデータを復元するよう指示する復元指示手段と、

前記復元指示に応答して、無線により前記個人用電話帳のデータを、前記サーバからダウンロードするデータ・ダウンロード手段とを有することを特徴とする携帯電話の電話帳管理システム。

【請求項３】　請求項１の携帯電話の電話帳管理システムにおいて、

前記個人用電話帳が、所定の範囲毎に、その範囲の内容が、以前にアップロードされた以降、変更されたかどうかを示す更新フラグを有し、

前記データ・アップロード手段が、前記更新フラグを参照して、以前のアップロード以降に変更のあった範囲のみをアップロードの対象にすることを特徴とする携帯電話の電話帳管理システム。

【請求項４】　請求項３の携帯電話の電話帳管理システムにおいて、

前記所定の範囲が、前記個人用電話帳における、１つの名前とそれに関する情報を含む範囲であることを特徴とする携帯電話の電話帳管理システム。

【請求項５】　請求項１の携帯電話の電話帳管理システムにおいて、

前記個人用電話帳が、複数の電話番号を記録し、各電話番号毎に、前記携帯電話装置が、その電話番号からの電話を受け付けるかどうかを示す着信許否フラグを有し、

前記携帯電話システムが更に、他の電話装置と前記携帯電話装置を接続する交換機を有し、

前記交換機は、前記他の電話装置から前記携帯電話装置に発呼があった場合に、当該他の電話装置の電話番号に対応する、前記個人用電話帳内の前記着信許否フラグに基づいて、前記他の電話装置を前記携帯電話装置に接続するかどうかを判断することを特徴とする携帯電話の電話帳管理システム。

【請求項６】　請求項１の携帯電話の電話帳管理システムにおいて、

2

前記携帯電話装置が更に、無線によって、メールを受信するメール受信手段を有し、

前記個人用電話帳が、複数のメールアドレスを記録し、各メールアドレス毎に、前記携帯電話装置が、そのメールアドレスからのメールを受け付けるかどうかを示すメール着信許否フラグを有し、

前記携帯電話システムが更に、前記携帯電話装置宛のメールを、前記携帯電話装置に配信するメールサーバを有し、

前記メールサーバは、前記携帯電話装置宛のメールを受け取った場合に、当該メールの送信元メールアドレスに対応する、前記個人用電話帳内の前記メール着信許否フラグに基づいて、当該メールを前記携帯電話装置に配信するかどうかを判断することを特徴とする携帯電話の電話帳管理システム。

【請求項７】　請求項１の携帯電話の電話帳管理システムにおいて、

前記所定のネットワークが、前記携帯電話の加入する携帯電話事業者の携帯電話網であることを特徴とする携帯電話の電話帳管理システム。

【請求項８】　電話着信管理システムにおいて、

電話装置に着信があった場合に、発呼元の電話装置と前記着信のあった電話装置を接続する交換機と、

それぞれが１ユーザに対応する複数の個人用電話帳データであって、各個人用電話帳データは、複数の電話番号を記録し、各電話番号毎に、ユーザがその電話番号からの電話を受け付けるかどうかを示す着信許否フラグを有する個人用電話帳データとを有し、

前記交換機は、前記ユーザの電話装置に着信があった場合に、発呼元の電話番号に対応する、前記個人用電話帳データ内の前記着信許否フラグに基づいて、前記発呼元の電話装置をユーザの電話装置に接続するかどうかを判断することを特徴とする電話着信管理システム。

【請求項９】　メール着信管理システムにおいて、

所定のメールアドレスにメールが送信されてきた場合に、当該メールを前記所定のメールに配信するメールサーバと、

それぞれが１ユーザに対応する複数の個人用アドレス帳データであって、各個人用アドレス帳データは、複数のメールアドレスを記録し、各メールアドレス毎に、ユーザがそのメールアドレスからのメールを受け付けるかどうかを示すメール着信許否フラグを有する個人用アドレス帳データとを有し、

前記メールサーバは、前記ユーザのメールアドレスにメールがあった場合に、当該メールの送信元アドレスに対応する、前記個人用アドレス帳データ内の前記メール着信許否フラグに基づいて、前記メールをユーザのメールアドレスに配信するかどうかを判断することを特徴とするメール着信管理システム。

【請求項１０】　個人用電話帳を記録する携帯電話装置

と、前記携帯電話装置と通信可能なサーバを含む携帯電話の電話帳管理方法において、
前記携帯電話装置から、前記個人用電話帳のデータを前記サーバに送信するよう指示する送信指示ステップと、
前記送信指示に応答して、無線により前記個人用電話帳のデータを、前記携帯電話装置から前記サーバにアップロードするデータ・アップロード・ステップとを有することを特徴とする携帯電話の電話帳管理方法。
【請求項１１】　請求項１０の携帯電話の電話帳管理方法において、
前記携帯電話装置から、前記サーバに保存されている前記個人用電話帳のデータを復元するよう指示する復元指示ステップと、
前記復元指示に応答して、無線により前記個人用電話帳のデータを、前記サーバから前記携帯電話装置にダウンロードするデータ・ダウンロード・ステップとを有することを特徴とする携帯電話の電話帳管理方法。
【請求項１２】　請求項１０の携帯電話の電話帳管理方法において、
前記個人用電話帳が、所定の範囲毎に、その範囲の内容が、以前にアップロードされた以降、変更されたかどうかを示す更新フラグを有し、
前記データ・アップロード・ステップが、前記更新フラグを参照して、以前のアップロード以降に変更のあった範囲のみをアップロードの対象にすることを特徴とする携帯電話の電話帳管理方法。
【請求項１３】　請求項１０の携帯電話の電話帳管理方法において、
前記個人用電話帳が、複数の電話番号を記録し、各電話番号毎に、前記携帯電話装置が、その電話番号からの電話を受け付けるかどうかを示す着信許否フラグを有し、
前記他の電話装置から前記携帯電話装置に発呼があった場合に、当該他の電話装置の電話番号に対応する、前記個人用電話帳内の前記着信許否フラグに基づいて、前記他の電話装置を前記携帯電話装置に接続するかどうかを判断するステップを有することを特徴とする携帯電話の電話帳管理方法。
【請求項１４】　請求項１０の携帯電話の電話帳管理方法において、
無線によって、メールを受信するメール受信ステップを更に有し、
前記個人用電話帳が、複数のメールアドレスを記録し、各メールアドレス毎に、前記携帯電話装置が、そのメールアドレスからのメールを受け付けるかどうかを示すメール着信許否フラグを有し、
前記携帯電話装置宛のメールを受け取った場合に、当該メールの送信元メールアドレスに対応する、前記個人用電話帳内の前記メール着信許否フラグに基づいて、当該メールを前記携帯電話装置に配信するかどうかを判断するステップを有することを特徴とする携帯電話の電話帳管理方法。
【請求項１５】　電話着信管理方法において、
それぞれが１ユーザに対応する複数の個人用電話帳データであって、各個人用電話帳データは、複数の電話番号を記録し、各電話番号毎に、ユーザがその電話番号からの電話を受け付けるかどうかを示す着信許否フラグを有する個人用電話帳データを有し、
電話装置に着信があった場合に、発呼元の電話装置と前記着信のあった電話装置を接続するステップと、
前記接続ステップが更に、前記ユーザの電話装置に着信があった場合に、発呼元の電話番号に対応する、前記個人用電話帳データ内の前記着信許否フラグに基づいて、前記発呼元の電話装置をユーザの電話装置に接続するかどうかを判断するサブステップを有することを特徴とする電話着信管理方法。
【請求項１６】　メール着信管理方法において、
それぞれが１ユーザに対応する複数の個人用アドレス帳データであって、各個人用アドレス帳データは、複数のメールアドレスを記録し、各メールアドレス毎に、ユーザがそのメールアドレスからのメールを受け付けるかどうかを示すメール着信許否フラグを有する個人用アドレス帳データを有し、
所定のメールアドレスにメールが送信されてきた場合に、当該メールを前記所定のメールに配信するステップと、
前記配信ステップが更に、前記ユーザのメールアドレスにメールがあった場合に、当該メールの送信元アドレスに対応する、前記個人用アドレス帳データ内の前記メール着信許否フラグに基づいて、前記メールをユーザのメールアドレスに配信するかどうかを判断するサブステップを有することを特徴とするメール着信管理方法。
【請求項１７】　個人用電話帳を記録する携帯電話装置と、前記携帯電話装置と通信可能なサーバを含む携帯電話の電話帳管理方法を実現させるプログラムを記録したコンピュータ読み取り可能な記録媒体であって、前記方法を実現させるプログラムは、
前記携帯電話装置から、前記個人用電話帳のデータを前記サーバに送信するよう指示する送信指示ステップと、
前記送信指示に応答して、無線により前記個人用電話帳のデータを、前記携帯電話装置から前記サーバにアップロードするデータ・アップロード・ステップとを有することを特徴とするプログラムを記録したコンピュータ読み取り可能な記録媒体。
【請求項１８】　請求項１７のコンピュータ読み取り可能な記録媒体において、前記プログラムが、
前記携帯電話装置から、前記サーバに保存されている前記個人用電話帳のデータを復元するよう指示する復元指示ステップと、
前記復元指示に応答して、無線により前記個人用電話帳のデータを、前記サーバから前記携帯電話装置にダウン

ロードするデータ・ダウンロード・ステップとを更に有することを特徴とするコンピュータ読み取り可能な記録媒体。

【請求項１９】　請求項１７のコンピュータ読み取り可能な記録媒体において、前記プログラムが、

前記個人用電話帳が、複数の電話番号を記録し、各電話番号毎に、前記携帯電話装置が、その電話番号からの電話を受け付けるかどうかを示す着信許否フラグを有するよう構成するステップと、

前記他の電話装置から前記携帯電話装置に発呼があった場合に、当該他の電話装置の電話番号に対応する、前記個人用電話帳内の前記着信許否フラグに基づいて、前記他の電話装置を前記携帯電話装置に接続するかどうかを判断するステップとを有することを特徴とするコンピュータ読み取り可能な記録媒体。

【請求項２０】　請求項１７のコンピュータ読み取り可能な記録媒体において、前記プログラムが、

前記個人用電話帳が、複数のメールアドレスを記録し、各メールアドレス毎に、前記携帯電話装置が、そのメールアドレスからのメールを受け付けるかどうかを示すメール着信許否フラグを有するよう構成するステップと、前記携帯電話装置宛のメールを受け取った場合に、当該メールの送信元メールアドレスに対応する、前記個人用電話帳内の前記メール着信許否フラグに基づいて、当該メールを前記携帯電話装置に配信するかどうかを判断するステップとを有することを特徴とするコンピュータ読み取り可能な記録媒体。

【発明の詳細な説明】

【０００１】

【発明の属する技術分野】本発明は、携帯電話に内蔵された電話帳データをサーバに保存するシステムに関し、より詳しくは、前記電話帳データを、携帯電話が備えるデータ通信機能を用いて携帯電話事業者の提供するサーバに送信し、その後両データの同期をとるよう管理可能なシステムに関する。

【０００２】

【従来の技術】ここ数年で携帯電話の利用者数は爆発的に増加してきている。また、これに伴って携帯電話の高機能化も進み、多くの電話番号やメールアドレスを記録可能な電話帳を内蔵するものが一般的になってきている。

【０００３】電話帳は、今日では何百件、何千件といった、非常に多くの個人・会社等に関する情報を記録することができる。また、この情報には、名前、電話番号、メールアドレス等が含まれる。これらの項目の入力は、やや煩雑ではあるが、携帯電話のボタンを押すことによって行われ、仮名漢字変換機能を用いて漢字を入力することもできる。

【０００４】電話帳に記憶されたデータ（以降、電話帳データという）は、こうして携帯電話の利用に欠かせないものになっており、その重要性が高まっている。



【０００５】こうした携帯電話の電話帳の利便性を更に向上させるべく、いくつかの改良が提案されている。

【０００６】例えば、特開平１１－１９１８１６号の「無線通信装置」では、既存のパソコン通信網における電話帳データベースにアクセスして、所望の電話番号を検索できる無線通信装置を開示している。これによって、パソコン通信網に接続する特定の通信ソフトを起動せずに、そのパソコン通信網が提供するサービス（ここでは、電話番号の検索）を利用することができる。

【０００７】

【発明が解決しようとする課題】このような携帯電話の電話帳に関する第一の課題は、ユーザの不注意などで携帯電話の電話帳を失ってしまった場合や、携帯電話の機種を変更する場合に、再びその電話帳を利用するには、前述した煩雑な入力作業を一からやり直さなければならないということである。

【０００８】このような場合に、事前に当該電話帳を別の場所に保存しておき、必要に応じて携帯電話にダウンロードするという方法が提案されている。

【０００９】例えば、特開２０００－１２４９８５号の「電話帳データ登録方法、通信端末装置、及び記録媒体」では、パソコンから電話帳データをインターネット上のセンタにアップロードし、それをセンタ側から、あるいは携帯電話側から要求して、前記電話帳データを携帯電話に送信する方法が開示されている。しかし、この方法では、パソコンが必要であり、パソコンを有していないユーザが容易に利用できるものではない。

【００１０】また、特開平１１－１３６２８０号の「電子メールシステム及び方法」では、ユーザがパソコン等において使用するメールのアドレス帳をインターネット等のネットワーク上のサーバ内に保存しておき、ユーザがメールを送信しようとする場合に、そのアドレス帳をアクセスして所望のメールアドレスを取得できるシステムが提供される。しかし、このシステムはメールアドレスのみの共用を目的としており、携帯電話の電話帳について利用できるものではない。

【００１１】第二の課題は、着信の許否は、実際に携帯電話が着信した後に判断されていることである。現在の携帯電話では、通常、電話帳に着信拒否するとして登録された電話番号からの着信があった場合に、その着信を拒否することができる機能を有している。

【００１２】もし、交換機や携帯電話網内に電話帳があれば、宛先の携帯電話や基地局等を含む通信経路の資源を利用することなく着信許否の判断をすることができる。このような資源の無駄な利用は、１つの携帯電話について見ればわずかなものであるが、数百万台の携帯電話が普及している今日では、その全体の浪費は膨大なものとなり、他の携帯電話が利用可能な帯域幅を狭める結果となる。

【００１３】第三の課題は、電話の着信の拒否をするように、携帯電話で可能なメールの着信を拒否することができないことである。現在、携帯電話では様々な形態のメールを利用することができる。しかし、これらのメールについて予め登録したメールアドレスからのメールの着信を拒否するような機能は、携帯電話自体を含め通信経路上のどこにもない。

【００１４】前述した特開平１１－１３６２８０号のシステムでは、ユーザが使用するメールアドレスをネットワーク上のサーバ上に保持しているが、それを利用してメールの着信を拒否するような機能は有していない。

【００１５】

【課題を解決するための手段】従って、本発明は、上記第一の課題を解決するために、携帯電話からの指示により、携帯電話事業者の電話網内に配置されたサーバに電話帳データをアップロードし、必要に応じて携帯電話にダウンロードする。本発明は、アップロードのデータ量を抑えるため、新たに編集されたエントリのみをアップロードの対象とする。

【００１６】また、本発明は、上記第二の課題を解決するために、前記携帯電話事業者の電話網内に配置されたサーバに保存されている電話帳データを利用して、その電話帳データ内にあって、着信拒否を指定している電話番号から着信があった場合に、基地局等を経由して携帯電話に着呼要求を送信することなく当該電話網内で着信拒否を行うよう構成される。

【００１７】また更に、本発明は、上記第三の課題を解決するために、前記携帯電話事業者の電話網内に配置されたサーバに保存されている電話帳データを利用して、その電話帳データ内にあって、着信拒否を指定しているメールアドレスからメールが送信されてきた場合に、基地局等に内容を送信することなく当該電話網内で着信拒否を行うよう構成される。

【００１８】本発明の第一の実施態様は、個人用電話帳を記録する携帯電話装置と、前記携帯電話装置と通信可能なサーバを含む携帯電話の電話帳管理システムにおいて、前記サーバが、所定のネットワーク上に配置され、前記携帯電話装置が、前記個人用電話帳のデータを前記サーバに送信するよう指示する送信指示手段と、前記送信指示に応答して、無線により前記個人用電話帳のデータを、前記サーバにアップロードするデータ・アップロード手段とを有するよう構成される。

【００１９】本発明の第二の実施態様は、前記第一の実施態様において、前記携帯電話装置が、前記サーバに保存されている前記個人用電話帳のデータを復元するよう指示する復元指示手段と、前記復元指示に応答して、無線により前記個人用電話帳のデータを、前記サーバからダウンロードするデータ・ダウンロード手段とを有するよう構成される。これによって、ユーザが携帯電話の機種を変更した場合や、操作ミスで電話帳のデータを消失してしまった場合などに、元の状態に速やかに戻すことが可能となる。



【００２０】本発明の第三の実施態様は、前記第一の実施態様において、前記個人用電話帳が、所定の範囲毎に、その範囲の内容が、以前にアップロードされた以降、変更されたかどうかを示す更新フラグを有し、前記データ・アップロード手段が、前記更新フラグを参照して、以前のアップロード以降に変更のあった範囲のみをアップロードの対象にするよう構成される。これによって、電話帳データの保存に際して、変更分だけが電話帳サーバに転送されるため、わずかな転送データ量、及びわずかな時間で両方の電話帳データの同期をとることができる。

【００２１】本発明の第四の実施態様は、前記第一の実施態様において、前記個人用電話帳が、複数の電話番号を記録し、各電話番号毎に、前記携帯電話装置が、その電話番号からの電話を受け付けるかどうかを示す着信許否フラグを有し、前記携帯電話システムが更に、他の電話装置と前記携帯電話装置を接続する交換機を有し、前記交換機は、前記他の電話装置から前記携帯電話装置に発呼があった場合に、当該他の電話装置の電話番号に対応する、前記個人用電話帳内の前記着信許否フラグに基づいて、前記他の電話装置を前記携帯電話装置に接続するかどうかを判断するよう構成される。これによって、従来、携帯電話側で行っていた着信許可・拒否の判断を携帯電話網内で処理することが可能になり、携帯電話における負荷を軽減すると共に、携帯電話と携帯電話網の間のトラフィックを軽減させることができる。

【００２２】本発明の第五の実施態様は、前記第一の実施態様において、前記携帯電話装置が更に、無線によって、メールを受信するメール受信手段を有し、前記個人用電話帳が、複数のメールアドレスを記録し、各メールアドレス毎に、前記携帯電話装置が、そのメールアドレスからのメールを受け付けるかどうかを示すメール着信許否フラグを有し、前記携帯電話システムが更に、前記携帯電話装置宛のメールを、前記携帯電話装置に配信するメールサーバを有し、前記メールサーバは、前記携帯電話装置宛のメールを受け取った場合に、当該メールの送信元メールアドレスに対応する、前記個人用電話帳内の前記メール着信許否フラグに基づいて、当該メールを前記携帯電話装置に配信するかどうかを判断するよう構成される。これによって、従来、携帯電話では実現できなかった不要メールの拒絶を携帯電話網内にて処理することが可能となり、携帯電話の処理負荷を軽減すると共に、携帯電話と携帯電話網の間のトラフィックを軽減させることができる。

【００２３】

【発明の実施の形態】図１は、一般的な携帯電話の構成を示す機能ブロック図である。携帯電話１０は、表示手段１１、入力手段１２、記憶手段１３、データ送受信手

段１４、及び音声入出力手段１５を含んでいる。

【００２４】表示手段１１は、後で説明する電話帳編集画面や、通話中の状態、携帯電話に関する種々のステータスを表示する。

【００２５】入力手段１２は、０から９までの数字ボタン、フックボタン、メニュー表示ボタン、方向指示ボタン等を含んでいる。数字ボタンは、主に電話をかける際に電話番号を入力するために使用される。電話帳に漢字の名前を登録する場合も、これらのボタンを組み合わせて使用する。また、方向指示ボタンは、画面の移動指示や項目のスクロール等の操作に使用される。

【００２６】記憶手段１３は、電話帳データ、携帯電話のステータス、音声データ等のデータを記憶するのに用いられる。

【００２７】データ送受信手段１４は、携帯電話からデータを変調処理した後、携帯電話のアンテナ、携帯電話網に接続された基地局（ＢＳ）を経由して、目的のノードにそれらを送信する。逆に、携帯電話宛に送信されたデータは、前述したのと逆の経路で携帯電話に送信され、携帯電話は、データ送受信手段１４によってそのデータを受信し、復調処理を施す。ここでいうデータが音声データである場合は、従来の電話機と同様の機能を果たすことになる。

【００２８】近年では、音声以外の、例えば文字情報を含んだデータの送受信が可能である。このような文字情報は、記憶手段１３に記憶され、必要に応じて表示手段１１に表示される。携帯電話における文字情報の送受信の代表的な例はメールとウエブである。

【００２９】音声入出力手段１５は、通常、音声入力手段としてのマイクと、音声出力手段としてのスピーカを備えている。これらは、主として携帯電話で相手と会話をするような場合に用いられる。

【００３０】次に、図２を参照して、記憶手段１３に記憶される電話帳データ２０について説明する。電話帳データ２０は、メールのアドレス帳と同様に、名前（通話相手）毎にいくつかの情報を有している。この電話帳データ２０が使用される代表的な例は、電話をかけるときである。携帯電話のユーザは、まず、表示手段１１にこの電話帳データ２０に登録された名前を一覧表示させ、電話をかけたい相手を方向指示ボタン等を使用して特定する。次に、その状態でフックボタン（オンフック）を押して電話をかける。これによって、ユーザは、電話帳データ２０に事前に登録された電話番号を、ボタンを打つことなくワンタッチで携帯電話に指定することができる。

【００３１】図２には、電話帳データ２０の一例が示されている。ここでは、電話帳データ２０は、名前、読み仮名、電話番号、メールアドレス、グループの各項目を有している。従って、表示手段１１には、電話帳データを表示する際に、名前の読み仮名順や、グループ別に表示させることができ、ユーザの利便性を向上させている。図２の電話帳データ２０では、友達のグループをＧ１として、そこに太郎と花子に関する情報を登録している。Ｇ２は、会社関係のグループであり、Ａ社とＢ社に関する情報が登録されている。

【００３２】電話帳データ２０には、メールアドレスが含まれており、表示手段１１上で相手を指定した後、例えばメニューで「メール作成」を選ぶと、そのメールアドレスを宛先として、メールの編集画面が表示される。

【００３３】電話帳データ２０には、図２に示した項目の他にも様々な項目を含むことができる。

【００３４】次に、本発明の第一の実施形態について説明する。本発明の第一の実施形態は、携帯電話の電話帳データを、携帯電話網上のサーバに保存しておき、機種変更時や障害時に、そこから復元を行うものである。

【００３５】本発明の第一の実施形態の構成を、図３を参照して説明する。本発明の第一の実施形態は、ユーザの携帯電話１０と、その携帯電話の記憶手段１３内に記憶された電話帳データ２０と、携帯電話事業者の電話網内に設置された電話帳サーバ３０と、そのサーバ内にユーザ別に保存されるレプリカ電話帳データ４０から構成されている。

【００３６】携帯電話１０は、図１に示したような、データ通信機能を持つ携帯電話である。携帯電話１０はその内部に電話帳データ２０を記録しており、ユーザは携帯電話単体で、あるいは外部のパーソナルコンピュータ等の機器とケーブル等で接続することで、電話帳データ２０の内容を自由に編集することが可能である。

【００３７】電話帳データ２０は、図２に示すように、数百件、数千件の個人や会社を記憶し、それぞれについて名前や電話番号等を記憶している。

【００３８】電話帳サーバ３０は、携帯電話事業者の電話網内に設置され、レプリカ電話帳データ４０を保存・管理している。レプリカ電話帳データ４０は、各ユーザの電話帳データ２０をまとめたもので、それぞれ電話帳データ２０と同様の情報を含んでいる。

【００３９】次に、図４と図５を参照して本実施形態の動作について詳細に説明する。

【００４０】ユーザは、自分の携帯電話１０内の電話帳データ２０を、表示手段１１に表示された電話帳編集画面により編集する（図４のステップＳ０１）。ユーザは、電話帳編集画面に表示された各項目について、ボタン等の入力手段を用いて編集する。

【００４１】次にユーザは、編集された電話帳データ２０を、携帯電話事業者の提供する電話帳サーバ３０に保存するために、電話帳管理画面から電話帳データ２０をセンタに保存するよう指示する（ステップＳ０２）。この操作をすることにより、携帯電話１０は、電話帳データ２０に所定の変調処理を加えた後、アンテナ、基地局を経由して、電話帳サーバ３０に送信する。

【００４２】この場合に携帯電話１０の表示手段１１に表示される電話帳管理画面の表示内容が、図５Ａに示されているが、ユーザは、「①センタに保存」という項目を方向指示ボタン等を使って指定し、選択することによって、電話帳データ２０のセンタへの送信処理が開始される。

【００４３】電話帳サーバ３０は、電話帳データ２０を受信し（ステップＳ０３）、そのデータをレプリカ電話帳データ４０の該当ユーザの箇所に反映させる（ステップＳ０４）。レプリカ電話帳データ４０は、前述したように、ユーザ毎に電話帳データ２０の内容を収納する。

【００４４】電話帳データ２０の転送は、ＷＡＰ(Wireless Application Protocol)などのパケット通信プロトコルを用いて行われるのが一般的であるが、その他の標準プロトコルや、独自プロトコルを使用して行うこともできる。

【００４５】レプリカ電話帳データ４０へのデータの更新が完了したら、電話帳サーバ３０は、携帯電話１０に対して、データの更新が完了した旨を通知する（ステップＳ０５）。

【００４６】次に、携帯電話１０はそれを受けて、電話帳データ２０が（レプリカ電話帳データ４０の一部として）電話帳サーバ３０に保存された旨を表示する（ステップＳ０６）。この時の電話帳管理画面の内容が、図５Ｂに示されている。

【００４７】また、図２について前述した電話帳データ２０の項目の他に、「更新フラグ」の項目を設け、電話帳データ２０の編集時に、変更のあったエントリの更新フラグを１（オン）にセットすると、前述した電話帳サーバ３０への転送は、その更新フラグが１のものだけ転送すればよいことになる。このことによって、変更のあったエントリのデータのみが転送されることになり、転送データ量が最小限に抑えられる。尚、更新フラグが１のエントリのデータが電話帳サーバ３０に保存されると、その電話帳データ２０における当該更新フラグは０（オフ）にセットされる。

【００４８】次に、ユーザが自分の携帯電話１０内の電話帳データ２０を、携帯電話事業者の提供する電話帳サーバ３０より復元する場合について、図５及び図６を参照して説明する。ユーザは、自分の携帯電話１０から、電話帳サーバ３０に電話帳データ２０の復元を指示する（図６のステップＳ１１）。この場合の電話帳管理画面の表示内容が、図５Ａに示されているが、ユーザは、「②センタより復元」という項目を方向指示ボタン等を使って指定し、選択することによって、電話帳サーバ３０からの復元処理が開始される。

【００４９】電話帳サーバ３０が、携帯電話１０からの指示を受けると（ステップＳ１２）、レプリカ電話帳データ４０より、対応するユーザの電話帳データを抜き出して（ステップＳ１３）、それを携帯電話１０に対して送信する（ステップＳ１４）。ここで使用されるプロトコルは、前述した、電話帳データ２０の保存に用いられるプロトコルと同様のものであってもよい。

【００５０】携帯電話１０は、電話帳サーバ３０からの送信を受けて（ステップＳ１５）、電話帳データ２０を復元する（ステップＳ１６）。尚、復元された電話帳データ２０の全てのエントリの更新フラグは０にセットされる。

【００５１】こうして、電話帳データ３０からの復元処理が完了すると、携帯電話１０の表示手段１１に表示される電話帳管理画面には、図５Ｃのようなメッセージが示され、復元処理が完了したことを知らせる。

【００５２】上述したように、本発明の第一の実施形態においては、電話帳サーバ３０は、携帯電話の契約携帯電話事業者の携帯電話網上に設置されているが、インターネットのような、この携帯電話網に接続される他のネットワーク上に設置されていてもよい。その場合、電話帳データ２０は、携帯電話から携帯電話網を経由して、電話帳サーバ３０のあるネットワークに転送される。

【００５３】しかし、本発明の第一の実施形態のように、電話帳サーバ３０を当該携帯電話網上に設置すると、外部との接続点を設けなくて済むためセキュリティ面での強化が図られ、携帯電話事業者のサービスとして従来の提供サービスと一体的に提供することができるというメリットがある。

【００５４】また、レプリカ電話帳データ４０は、多くのユーザの電話帳データ３０の集合体であるため、１ユーザからの復元処理の要求があった場合は、例えば、そのユーザの電話番号を用いて、レプリカ電話帳データ４０の中から、当該ユーザの電話帳データを識別しなければならない。そのユーザが、携帯電話の事業者を変更したような場合に、新しい機種に電話帳データをダウンロードする場合は、同一のユーザでありながら電話番号が異なっているために問題となる。

【００５５】この場合は、住所、氏名の組み合わせを使用したり、他の識別番号を用意することによって、レプリカ電話帳データ４０の中から当該ユーザの電話帳データを取り出すことが望ましい。

【００５６】次に、本発明の第二の実施形態について説明する。本発明の第二の実施形態は、携帯電話で使用する電話帳データを、携帯電話網上の電話帳サーバに保存することによって、そのサーバにおいて、他の電話から当該携帯電話にかけられた電話について、着信の拒否を判定しようとするものである。

【００５７】本発明の第二の実施形態の構成について図７を参照して説明する。本発明の第二の実施形態は、ユーザの携帯電話１１０、その内部の電話帳データ１２０、携帯電話事業者の電話網内に設置された電話帳サーバ１３０、そのサーバ内に保存されるレプリカ電話帳データ１４０、そのレプリカ電話帳データ１４０を参照し

て実際の通話の管理を行う交換機１５０、及び携帯電話１１０に電話をかける携帯電話１６０ａ、電話１６０ｂから構成されている。

【００５８】電話帳データ１２０とレプリカ電話帳データ１４０は、前記第一の実施形態の電話帳データ２０とレプリカ電話帳データ４０にそれぞれ対応するものであるが、項目として更に、そのエントリの電話番号から電話があった場合に、着信を許可するか否かを示す着信許否フラグを有している（不図示）。このフラグが１（オン）であれば、そのエントリの相手からの着信を受け付け、０（オフ）であれば、そのエントリの相手からの着信を受け付けない。

【００５９】また、ここでは、ユーザが携帯電話１１０において、電話帳データ１２０を編集して、電話を受けたくない相手の前記着信許否フラグを０にセットし、当該編集された電話帳データ１２０の内容は、前述した本発明の第一に実施形態に基づき、レプリカ電話帳データ１４０に反映される。

【００６０】携帯電話１１０、及び電話帳サーバ１３０は、前述した第一の実施形態と同様のものであるが、それぞれ、前述した着信許否フラグに関する処理が追加されている。

【００６１】交換機１５０は、ユーザの携帯電話１１０に対して、他の携帯電話１６０ａや電話１６０ｂから着信があった際に、その接続を携帯電話１１０へと接続する。

【００６２】携帯電話１６０ａは、携帯電話事業者を問わない、番号通知機能を有した通常の携帯電話である。また、電話１６０ｂは、番号通知機能を有した、携帯電話以外の電話を指し、例えば、家庭にある、公衆電話回線に接続された電話である。

【００６３】次に図８を参照して本実施例の動作について詳細に説明する。

【００６４】まず、ユーザの携帯電話１１０に対して、他の携帯電話１６０ａや電話１６０ｂがダイアルすると（図８のステップＳ２１）、交換機１５０に対して発呼要求が送られる（ステップＳ２２）。その要求を受けた交換機１５０は（ステップＳ２３）、携帯電話事業者の電話網内に設置された電話帳サーバ１３０に対して、その電話からの着呼を受け付けるかどうかの確認を要求する（ステップＳ２４）。

【００６５】次に、その要求を受けた電話帳サーバ１３０は（ステップＳ２５）、レプリカ電話帳データ１４０の内容を検索することで、その着信を許可するか否かを判断する（ステップＳ２６）。具体的には、相手の電話番号から、レプリカ電話帳データ１４０内の対応するエントリを特定し、そのエントリの着信許否フラグが１か０かを判定する。１であれば着信を許可し、０であれば着信を拒否する。

【００６６】ここで、着信が許可されていると判定された場合、この判定結果を交換機１５０に返し（ステップＳ２７）、それを受けた交換機１５０は、宛先の携帯電話１１０に対して、着呼を要求する（ステップＳ２８）。

【００６７】次に、携帯電話１１０はその要求を受け（ステップＳ２９）、電話帳データ１２０から、発呼元に関する情報を得て（ステップＳ３０）、それに応じて着信音を鳴らしたり、画面上に名前を表示したりする（ステップＳ３１）。

【００６８】ユーザがその呼を受け付けた場合（ステップＳ３２）、その応答を受けた交換機１５０（ステップＳ３３）は、発呼元の携帯電話１６０ａあるいは電話１６０ｂに呼出音を鳴らすなどして、呼び出しが成功したことを通知する。それ以降は通常の電話の呼制御と同じである。

【００６９】もし、ユーザの携帯電話１１０の電話帳データ１２０で、その相手からの着呼を受け付けないように設定していた場合、レプリカ電話帳データ１４０にもその内容が反映されているので、ステップＳ２７において、電話帳サーバ１３０は交換機１５０に対して着呼失敗を通知する。その結果として、ステップＳ２９からＳ３３の着呼許可時の処理の代わりに、着呼拒否としてステップＳ３４において発呼元に話中音を鳴らすなどして、呼び出しが失敗したことを通知する。

【００７０】発呼を行った電話の電話番号が、電話帳データ１２０、レプリカ電話帳データ１４０内になかった場合に、着信拒否として扱うか着信許可として扱うかは、事前に決めておく必要がある。本発明においては、どちらを選択することもでき、また、ユーザ毎に設定しておくこともできる。

【００７１】また、本発明の第一の実施形態と同様、電話帳サーバ１３０は、携帯電話の契約携帯電話事業者の携帯電話網上に設置されているが、インターネットのような、この携帯電話網に接続される他のネットワーク上に設置されていてもよい。

【００７２】ただし、本発明の第一の実施形態で説明したように、電話帳サーバ１３０を当該携帯電話網上に設置することにより、キュリティ面での強化と、携帯電話事業者のサービスの一体的な充実が図られる。

【００７３】次に、本発明の第三の実施形態について説明する。第三の実施の形態は、携帯電話で使用する電話帳データを、携帯電話網上のサーバに保存することによって、他の電話、パソコン等から携帯電話に向けて発信されるメールの着信の許否を判定しようとするものである。

【００７４】図９を参照すると、本発明の第三の実施例は、ユーザの携帯電話２１０、その内部の電話帳データ２２０、携帯電話事業者内の電話網内に設置された電話帳サーバ２３０、そのサーバ内に保存されるレプリカ電話帳データ２４０、そのレプリカ電話帳データ２４０を

参照して実際のメール配信の管理を行うメールサーバ２７０、携帯電話２１０に対してメールを送信する同じ携帯電話事業者内の携帯電話２６０、及びその携帯電話事業者以外のメールサーバ２８０から構成されている。

【００７５】電話帳データ２２０及びレプリカ電話帳データ２４０は、第一の実施形態の電話帳データ２０及びレプリカ電話帳データ４０にそれぞれ対応するものであるが、新たな項目として、そのエントリのメールアドレスからのメールの着信を許可するか否かを示すメール着信許否フラグを有している（不図示）。このフラグが１（オン）であれば、そのエントリの相手からのメールを受け付け、０（オフ）であれば、そのエントリの相手からのメールを拒否する。

【００７６】また、ここでは、ユーザが携帯電話２１０において、電話帳データ２２０を編集して、メールを受け取りたくない相手の前記メール着信許否フラグを０にセットし、当該編集された電話帳データ２２０の内容は、前述した本発明の第一に実施形態に基づき、レプリカ電話帳データ２４０に反映される。

【００７７】携帯電話２１０、及び電話帳サーバ２３０については、基本的に第二の実施形態におけるものと同様であるが、前述したように、それぞれメール着信許否フラグに関する処理などが追加されている。

【００７８】メールサーバ２７０は、ユーザの携帯電話２１０に割り当てられたメールアドレスに対して、他の携帯電話２６０や外部からのメールを配信するメールサーバ２８０からのメールがあった際に、そのメールを携帯電話２１０へと配信する。

【００７９】ここでは、説明の便宜上、携帯電話２１０へのメールは、メールサーバ２７０が携帯電話２１０に配信するものとして統一的に表現するが、実際は、携帯電話がメールを受け取る方法には様々なものがある。１つは、ダウンロードタイプで、メールサーバから一方的に携帯電話にメールを送信するプッシュ型と、携帯電話がメールサーバにメールを読みに行くプル型がある。もう１つは、Ｗｅｂメールタイプで、携帯電話はブラウザでメールサーバにあるメールを見るタイプである。また、ショートメールのようなメールは、メールサーバを経由しない、いわゆる直送型であるが、このようなメールについても、携帯電話網内において、宛先の携帯電話に送る前にチェックをすることによって、本発明を適用することができる。

【００８０】携帯電話２６０は、携帯電話２１０と同一の携帯電話事業者に属する、メール送信機能を有する携帯電話である。

【００８１】メールサーバ２８０は、他の携帯電話事業者や、インターネット接続業者が提供するメールサーバであり、携帯電話２１０の携帯電話網上のメールサーバ２７０に対してメールを配信する。メールサーバ２８０は、一般的にはインターネット上に配置され、携帯電話２１０の携帯電話網とは、何らかの携帯で互いに接続されている。

【００８２】次に、図１０を参照して本実施例の動作について詳細に説明する。

【００８３】ユーザの携帯電話２１０に対して、他の携帯電話２６０や外部のメールサーバ２８０が、メールサーバ２７０を経由してメールの配信を行おうとして（図１０のステップＳ４１）当該メールサーバ２７０に接続を試みる（ステップＳ４２）。

【００８４】その接続を受け付けたメールサーバ２７０は（ステップＳ４３）、そのメールを受け付けるかどうかを確認するために、電話帳サーバ２３０に問い合わせる（ステップＳ４４）。電話帳サーバ２３０は、その問い合わせを受け（ステップＳ４５）、そのメールの送信元がレプリカ電話帳データ２４０内にメールアドレスとして記憶されているかどうか確認し、そのアドレスが存在する場合に、対応するメール着信許否フラグを確認し、そのメールの差出人からのメールを受け付けるかどうかを判定する（ステップＳ４６）。

【００８５】前述の通り、前記対応するメール着信許否フラグが１であれば、メールの配信を認め、０であれば配信を拒否する。

【００８６】この結果をメールサーバ２７０に返し（ステップＳ４８）、メールの配信を受け付けるのであれば、そのメールの到着を携帯電話２１０に対して通知する（ステップＳ４９、Ｓ５０）。携帯電話２１０は、差出人に関する情報を電話帳データ２２０から得て、それに応じて着信音を鳴らしたり、画面上に名前を表示したりする（ステップＳ５１）。

【００８７】もし、その差出人からのメールを受け付けないように設定していた場合、ステップＳ４８においてメールサーバ２７０は携帯電話２６０あるいはメールサーバ２８０に対して、配信エラーを通知する。

【００８８】メールの送信元アドレスが、電話帳データ２２０、レプリカ電話帳データ２４０内のメールアドレスとして存在していなかった場合に、そのメールの着信を拒否するか否かは、事前に決めておく必要がある。本発明においては、どちらを選択することもでき、また、ユーザ毎に設定しておくこともできる。

【００８９】また、本発明の第一、第二の実施形態と同様、電話帳サーバ２３０は、携帯電話の契約携帯電話事業者の携帯電話網上に設置されているが、インターネットのような、この携帯電話網に接続される他のネットワーク上に設置されていてもよい。ただし、本発明の第一、第二の実施形態と同様に、電話帳サーバ２３０を当該携帯電話網上に設置することにより、キュリティ面での強化と、携帯電話事業者のサービスの一体的な充実が図られる。

【００９０】

【発明の効果】従って、本発明の第一の実施形態では、

電話帳データ２０の保存と復元を可能とするため、ユーザが携帯電話の機種を変更した場合や、操作ミスで電話帳のデータを消失してしまった場合などに、元の状態に速やかに戻すことが可能となる。また、保存に際しては、変更分だけを電話帳サーバ３０に転送するため、わずかな転送データ量、及びわずかな時間で両方の電話帳データの同期をとることができる。

【００９１】更に、本発明の第二の実施形態では、従来、携帯電話側で行っていた着信許可・拒否の判断を携帯電話網内で処理することが可能になり、携帯電話における負荷を軽減すると共に、携帯電話と携帯電話網の間のトラフィックを軽減させることができる。

【００９２】また更に、従来、携帯電話では実現できなかった不要メールの拒絶を携帯電話網内にて処理することが可能となり、携帯電話の処理負荷を軽減すると共に、携帯電話と携帯電話網の間のトラフィックを軽減させることができる。

【図面の簡単な説明】

【図１】携帯電話の一般的な構成を示すブロック図である。

【図２】図１の携帯電話の記憶手段に記憶される電話帳データの例を示す図である。

【図３】本発明の第一の実施形態における携帯電話と電話帳サーバを概略的に示す図である。

【図４】本発明の第一の実施形態における電話帳データの保存動作を示すフローチャートである。



【図５】本発明の第一の実施形態における携帯電話の表示手段に表示された電話帳管理画面の内容を示す図である。

【図６】本発明の第一の実施形態における電話帳データの復元動作を示すフローチャートである。

【図７】本発明の第二の実施形態における携帯電話と電話帳サーバを概略的に示す図である。

【図８】本発明の第二の実施形態における動作を示すフローチャートである。

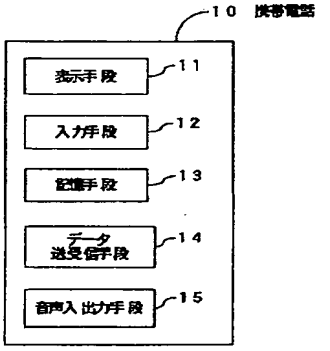
【図９】本発明の第三の実施形態における携帯電話と電話帳サーバを概略的に示す図である。

【図１０】本発明の第三の実施形態における動作を示すフローチャートである。

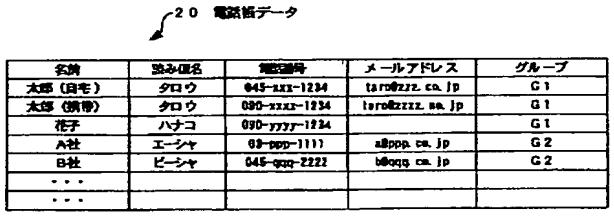
【符号の説明】

１０、１１０、１６０ａ、２１０、２６０　携帯電話
１１　表示手段
１２　入力手段
１３　記憶手段
１４　データ送受信手段
１５　音声入出力手段
２０、１２０、２２０　電話帳データ
３０、１３０、２３０　電話帳サーバ
４０、１４０、２４０　レプリカ電話帳データ
１５０　交換機
１６０ｂ　電話
２７０、２８０　メールサーバ

【図１】

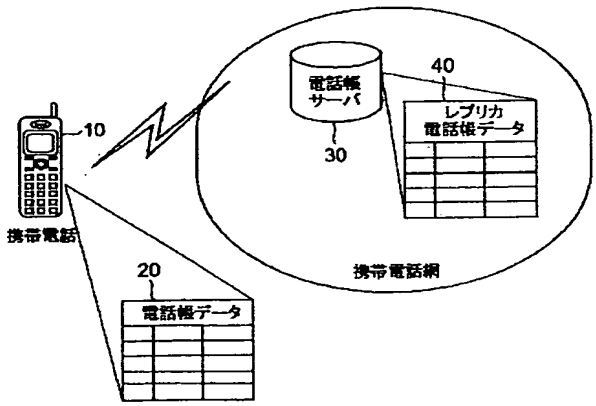



【図２】

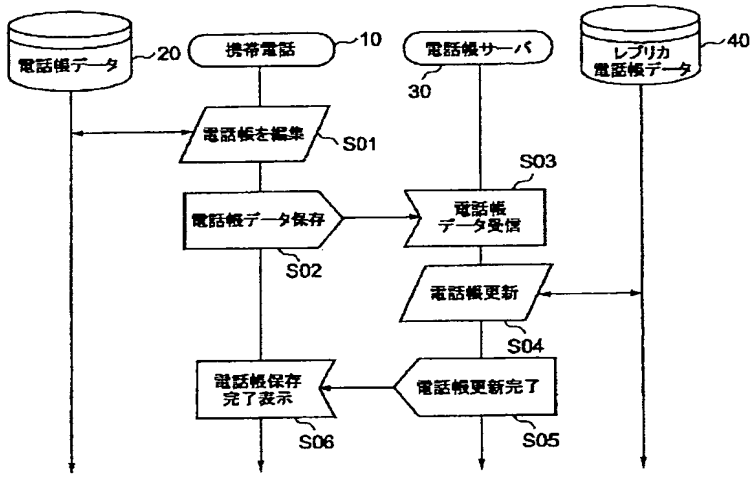



| 名前 | 読み仮名 | 電話番号 | メールアドレス | グループ |
|---|---|---|---|---|
| 太郎（自宅） | タロウ | 045-xxx-1234 | taro@zzz.co.jp | G１ |
| 太郎（携帯） | タロウ | 090-xxxx-1234 | taro@zzzz.ne.jp | G１ |
| 花子 | ハナコ | 090-yyyy-1234 | | G１ |
| A社 | エーシャ | 03-ppp-1111 | a@ppp.co.jp | G２ |
| B社 | ビーシャ | 045-qqq-2222 | b@qqq.co.jp | G２ |
| ・・・ | | | | |
| ・・・ | | | | |

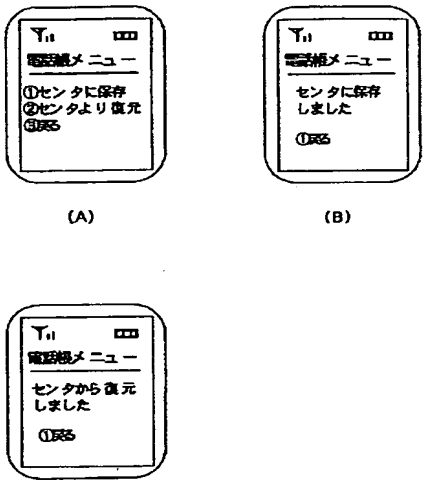
【図３】


10
携帯電話
電話帳
サーバ
30
40
レプリカ
電話帳データ
携帯電話網
20
電話帳データ

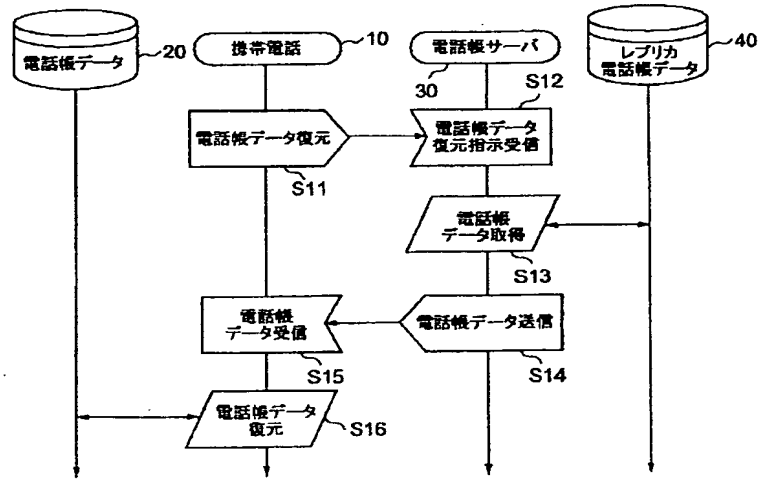
【図４】


電話帳データ
20
携帯電話
10
電話帳サーバ
30
レプリカ
電話帳データ
40
電話帳を編集
S01
電話帳データ保存
S02
S03
電話帳
データ受信
電話帳更新
S04
電話帳更新完了
S05
電話帳保存
完了表示
S06

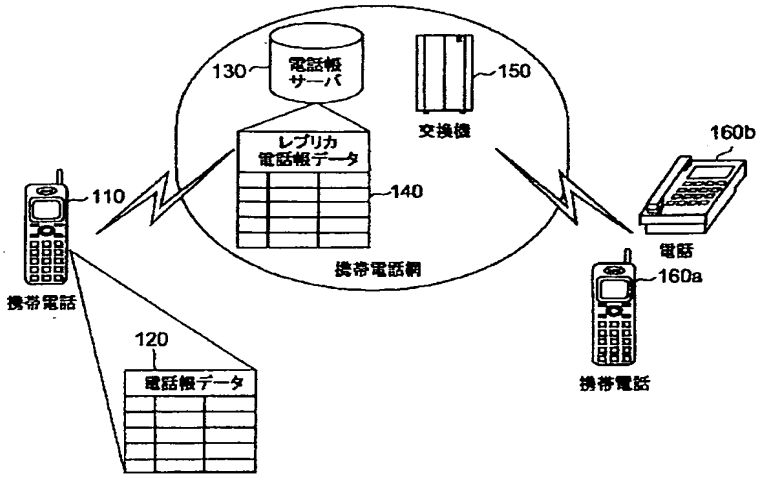
【図５】


電話帳メニュー
①センタに保存
②センタより復元
③戻る
(A)
電話帳メニュー
センタに保存
しました
①戻る
(B)
電話帳メニュー
センタから復元
しました
①戻る
(C)

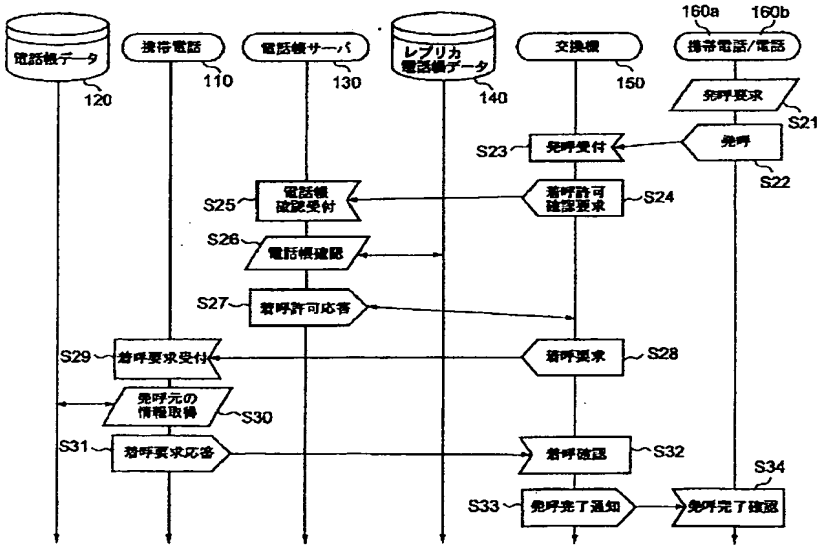
【図６】


電話帳データ
20
携帯電話
10
電話帳サーバ
30
レプリカ
電話帳データ
40
電話帳データ復元
S11
S12
電話帳データ
復元指示受信
電話帳
データ取得
S13
電話帳
データ受信
S15
電話帳データ送信
S14
電話帳データ
復元
S16

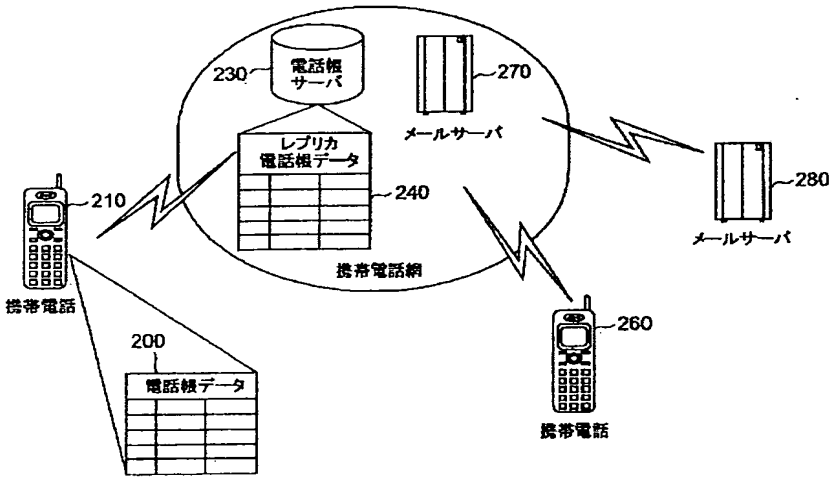
【図７】


130
電話帳
サーバ
150
交換機
160b
レプリカ
電話帳データ
140
110
電話
160a
携帯電話網
携帯電話
120
電話帳データ
携帯電話

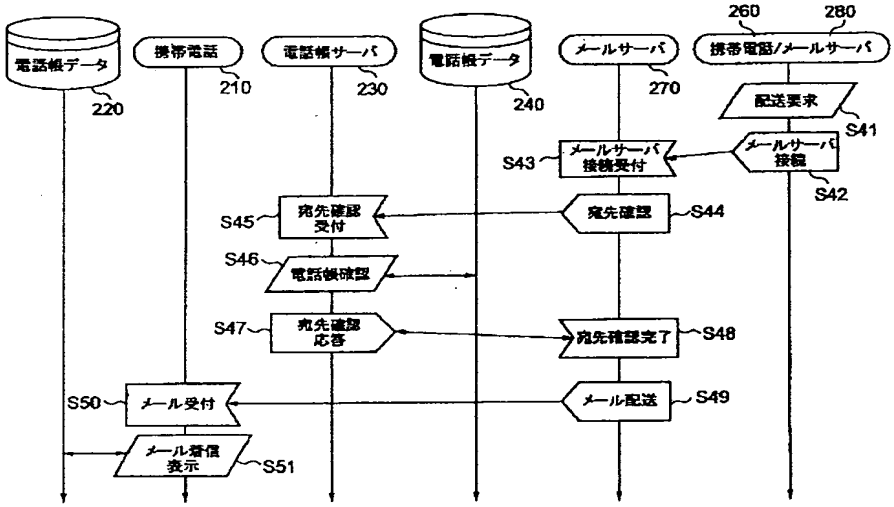
【図８】


電話帳データ
120
携帯電話
110
電話帳サーバ
130
レプリカ
電話帳データ
140
交換機
150
160a
160b
携帯電話/電話
発呼要求
S21
S23
発呼受付
発呼
S22
S25
電話帳
確認受付
着呼許可
確認要求
S24
S26
電話帳確認
S27
着呼許可応答
S29
着呼要求受付
着呼要求
S28
発呼元の
情報取得
S30
S31
着呼要求応答
着呼確認
S32
S34
S33
発呼完了通知
発呼完了確認

【図９】




【図１０】




フロントページの続き

| (51)Int.Cl.[7] | | 識別記号 | F I | | テーマコード(参考) |
|---|---|---|---|---|---|
| H04M | 1/725 | | H04M | 1/725 | |
| | 3/42 | | | 3/42 | Z |
| H04Q | 7/38 | | H04Q | 7/04 | D |

Ｆターム(参考) 5K024 DD01 DD02 GG01 GG03 GG05
5K027 AA11 FF01 FF22 HH21 HH26
5K036 AA07 DD11 DD31 DD46 DD48
JJ02 JJ13
5K067 AA12 AA34 BB04 DD23 DD24
DD53 DD57 EE02 EE10 EE16
EE23 FF07 GG01 GG11 HH11
HH17 HH22 HH23 HH24 KK15
5K101 KK12 KK16 LL12 NN18 NN21
PP03 PP05

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-057807
(43)Date of publication of application : 22.02.2002

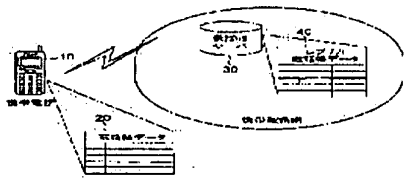
(51)Int.Cl. H04M 11/00
H04M 1/00
H04M 1/2745
H04M 1/56
H04M 1/57
H04M 1/725
H04M 3/42
H04Q 7/38

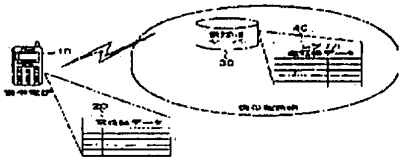
(21)Application number : 2000-240065
(22)Date of filing : 08.08.2000

(71)Applicant : NEC CORP
(72)Inventor : MIYASHITA SHIGEHIRO

## (54) TELEPHONE DIRECTORY MANAGEMENT SYSTEM FOR PORTABLE TELEPHONE

(57)Abstract:
PROBLEM TO BE SOLVED: To provide a method by which telephone directory data stored in a portable telephone can be registered in the same or a new portable telephone without inputting the data to the same or new portable telephone over again and, at the same time, the convenience of the portable telephone can be improved by putting telephone directory data recorded on a portable telephone network to practical use.
SOLUTION: A telephone directory management system for portable telephone stores the telephone directory data stored in the portable telephone in a server on the portable telephone network by using the data communication function of the portable telephone against the vanishment of the data. In addition, the information on the telephone numbers and mail addresses against which the acceptance of incoming calls and mail must be denied is recorded on the telephone directory stored in the server so that the telephone calls and mail from the telephone numbers and mail addresses may be denied on the portable telephone network.





LEGAL STATUS

[Date of request for examination] 24.07.2001
[Date of sending the examiner's decision of rejection] 13.10.2004
[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]
[Date of final disposal for application]
[Patent number]
[Date of registration]
[Number of appeal against examiner's decision of rejection]
[Date of requesting appeal against examiner's decision of rejection]
[Date of extinction of right]


Searching PAJ http://www19.ipdl.ncipi.go.jp/PA1/result/detail/mai...

## CLAIMS

[Claim(s)]

[Claim 1] In the telephone directory managerial system of the cell phone unit which records a personal telephone directory, and the cellular phone containing the server in which said cell phone unit and communication link are possible A transmitting directions means by which said server is arranged on a predetermined network and said cell phone unit directs that the data of said personal telephone directory transmit to said server, The telephone directory managerial system of the cellular phone characterized by answering said transmitting directions and having a data upload means to upload the data of said personal telephone directory to said server by wireless.

[Claim 2] The telephone directory managerial system of the cellular phone characterized by having a restoration directions means to direct that said cell phone unit restores the data of said personal telephone directory saved at said server, and a data download means to answer said restoration directions and to download the data of said personal telephone directory from said server by wireless, in the telephone directory managerial system of the cellular phone of claim 1.

[Claim 3] The telephone directory managerial system of the cellular phone characterized by setting only the range where it has the update flag which shows whether said personal telephone directory was changed in the telephone directory managerial system of the cellular phone of claim 1 after the content of the range uploaded for every predetermined range before, and modification had said data upload means with reference to said update flag after former upload as the object of upload.

[Claim 4] The telephone directory managerial system of the cellular phone characterized by being the range where said predetermined range includes one identifier and the information about it in said personal telephone directory in the telephone directory managerial system of the cellular phone of claim 3.

[Claim 5] In the telephone directory managerial system of the cellular phone of claim 1 said personal telephone directory Record two or more telephone numbers and it has the arrival-of-the-mail permission-or-denial flag with which said cell phone unit shows whether the telephone from the telephone number is received for every telephone number. It has the exchange to which said cellular-phone system connects the telephone equipment and said cell phone unit of further others. Said exchange said -- others -- the case where call origination is in said cell phone unit from telephone equipment -- being concerned -- others -- it corresponds to the telephone number of telephone equipment -- The telephone directory managerial system of the cellular phone characterized by judging whether telephone equipment besides the above is connected to said cell phone unit based on said arrival-of-the-mail permission-or-denial flag in said personal telephone directory.

[Claim 6] In the telephone directory managerial system of the cellular phone of claim 1 said cell phone unit further by wireless Have an e-mail receiving means to receive e-mail, and said personal telephone directory records two or more mail addresses. It has the e-mail arrival permission-or-denial flag with which said cell phone unit shows whether the mail from the mail address is received for every mail address. It has the mail server by which said cellular-phone system distributes mail of further addressing to said cell phone unit to said cell phone unit. Said mail server When the mail addressed to said cell phone unit is received, correspond to the transmitting agency mail address of the mail concerned. The telephone directory managerial system of the cellular phone characterized by judging whether the mail concerned is distributed to said cell phone unit based on said e-mail arrival permission-or-denial flag in said personal telephone directory.

[Claim 7] The telephone directory managerial system of the cellular phone characterized by said predetermined network being a cellular phone business operator's cellular-phone network with which said cellular phone joins in the telephone directory managerial system of the cellular phone of claim 1.

[Claim 8] The exchange which connects the telephone equipment of call origination origin, and telephone equipment with said arrival in a telephone arrival managerial system when telephone equipment has arrival of the mail, Each is two or more personal telephone directory data corresponding to one user. The telephone directory data for individuals Two or more telephone numbers are recorded and it has personal telephone directory data which have the arrival-of-the-mail permission-or-denial flag which shows whether a user receives the telephone from the telephone number for every telephone number. Said exchange The telephone arrival managerial system characterized by judging whether the telephone equipment of said call origination origin is connected to a user's telephone equipment based on said


JP,2002-057807,A [CLAIMS] http://www4.ipdl.ncipi.go.jp/cgi-bin/tran_web_cgi_ejj...

arrival-of-the-mail permission-or-denial flag in said personal telephone directory data corresponding to the telephone number of call origination origin when said user's telephone equipment has arrival of the mail.
[Claim 9] The mail server which distributes the mail concerned to said predetermined mail in an e-mail arrival managerial system when e-mail has been transmitted to the predetermined mail address, Each is two or more personal address book data corresponding to one user. The address book data for individuals Record two or more mail addresses and it has personal address book data which have the e-mail arrival permission-or-denial flag which shows whether a user receives the mail from the mail address for every mail address. When said user's mail address has e-mail, said mail server The e-mail arrival managerial system characterized by judging whether said mail is distributed to a user's mail address based on said e-mail arrival permission-or-denial flag in said personal address book data corresponding to the transmitting agency address of the mail concerned.
[Claim 10] The telephone directory management method of the cellular phone characterized by to have the transmitting directions step which directs that the data of said personal telephone directory transmit to said server from said cell phone unit, and the data upload step which answers said transmitting directions and uploads the data of said personal telephone directory from said cell phone unit to said server by wireless in the telephone directory management method of the cell phone unit which records a personal telephone directory, and the cellular phone containing the server in which said cell phone unit and communication link are possible.
[Claim 11] The telephone directory management method of the cellular phone characterized by having the restoration directions step it is directed that restores the data of said personal telephone directory saved at said server from said cell phone unit, and the data download step which answers said restoration directions and downloads the data of said personal telephone directory from said server to said cell phone unit by wireless in the telephone directory management method of the cellular phone of claim 10.
[Claim 12] The telephone directory management method of the cellular phone characterized by setting only the range where it has the update flag which shows whether said personal telephone directory was changed in the telephone directory management method of the cellular phone of claim 10 after the content of the range uploaded for every predetermined range before, and modification had said data upload step with reference to said update flag after former upload as the object of upload.
[Claim 13] In the telephone directory management method of the cellular phone of claim 10 said personal telephone directory Record two or more telephone numbers and it has the arrival-of-the-mail permission-or-denial flag with which said cell phone unit shows whether the telephone from the





telephone number is received for every telephone number. said -- others -- the case where call origination is in said cell phone unit from telephone equipment -- being concerned -- others -- it corresponds to the telephone number of telephone equipment -- The telephone directory management method of the cellular phone characterized by having the step which judges whether telephone equipment besides the above is connected to said cell phone unit based on said arrival-of-the-mail permission-or-denial flag in said personal telephone directory.
[Claim 14] In the telephone directory management method of the cellular phone of claim 10, it has further the e-mail receiving step which receives e-mail by wireless. Said personal telephone directory records two or more mail addresses. For every mail address It has the e-mail arrival permission-or-denial flag with which said cell phone unit shows whether the mail from the mail address is received. When the mail addressed to said cell phone unit is received, correspond to the transmitting agency mail address of the mail concerned. The telephone directory management method of the cellular phone characterized by having the step which judges whether the mail concerned is distributed to said cell phone unit based on said e-mail arrival permission-or-denial flag in said personal telephone directory.
[Claim 15] In a telephone arrival management method, they are two or more personal telephone directory data with which each corresponds to one user. The telephone directory data for individuals Record two or more telephone numbers and it has personal telephone directory data which have the arrival-of-the-mail permission-or-denial flag which shows whether a user receives the telephone from the telephone number for every telephone number. The step which connects the telephone equipment of call origination origin, and telephone equipment with said arrival when telephone equipment has arrival of the mail, When arrival of the mail has said connection step in said user's telephone equipment further The telephone arrival management method characterized by having the substep which judges whether the telephone equipment of said call origination origin is connected to a user's telephone equipment based on said arrival-of-the-mail permission-or-denial flag in said personal telephone directory data corresponding to the telephone number of call origination origin.
[Claim 16] In an e-mail arrival management method, they are two or more personal address book data with which each corresponds to one user. The address book data for individuals Record two or more mail addresses and it has personal address book data which have the e-mail arrival permission-or-denial flag which shows whether a user receives the mail from the mail address for every mail address. The step which distributes the mail concerned to said predetermined mail when e-mail has been transmitted to the predetermined mail address, When e-mail has said distribution step in

said user's mail address further The e-mail arrival management method characterized by having the substep which judges whether said mail is distributed to a user's mail address based on said e-mail arrival permission-or-denial flag in said personal address book data corresponding to the transmitting agency address of the mail concerned.

[Claim 17] It is the record medium which recorded the program which realizes the telephone directory management method of the cell phone unit which records a personal telephone directory, and the cellular phone containing the server in which said cell phone unit and communication link are possible and in which computer reading is possible. The transmitting directions step to which the program which realizes said approach directs that the data of said personal telephone directory transmit to said server from said cell phone unit, The record medium which recorded the program characterized by answering said transmitting directions and having the data upload step which uploads the data of said personal telephone directory from said cell phone unit to said server by wireless and in which computer reading is possible.

[Claim 18] The record medium which is characterized by to have further the restoration directions step directed that said program restores the data of said personal telephone directory saved at said server from said cell phone unit, and the data download step which answers said restoration directions and downloads the data of said personal telephone directory from said server to said cell phone unit by wireless in the record medium which claim 17 can computer read and in which computer reading is possible.

[Claim 19] In the record medium which claim 17 can computer read said program The step which said personal telephone directory records two or more telephone numbers, and said cell phone unit constitutes for every telephone number so that it may have the arrival-of-the-mail permission-or-denial flag which shows whether the telephone from the telephone number is received, said -- others -- the case where call origination is in said cell phone unit from telephone equipment -- being concerned -- others -- it corresponds to the telephone number of telephone equipment -- The record medium which is characterized by having the step which judges whether telephone equipment besides the above is connected to said cell phone unit based on said arrival-of-the-mail permission-or-denial flag in said personal telephone directory and in which computer reading is possible.

[Claim 20] In the record medium which claim 17 can computer read said program The step which said personal telephone directory records two or more mail addresses, and said cell phone unit constitutes for every mail address so that it may have the e-mail arrival permission-or-denial flag which shows whether the mail from the mail address is received, When the mail addressed to said cell phone unit is received, correspond to the transmitting agency mail address of the mail concerned. The record medium which is characterized by having the step which judges whether the mail concerned is distributed to said cell phone unit based on said e-mail arrival permission-or-denial flag in said personal telephone directory and in which computer reading is possible.

---

[Translation done.]

## DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] It transmits to the server which a cellular phone business operator provides with said telephone directory data in more detail using the data communication facility with which a cellular phone is equipped about the system which saves at a server the telephone directory data built in the cellular phone, and this invention relates to a manageable system so that the synchronization of both data may be taken after that.
[0002]
[Description of the Prior Art] The number of users of a cellular phone has been increasing explosively in the past several years. Moreover, advanced features of a cellular phone also progress in connection with this, and, generally the telephone directory which can record many the telephone numbers and mail addresses is built in.
[0003] A telephone directory can record information about very many individuals, firms, etc., such as what 100 affairs and what 1000 affairs, by the end of today. Moreover, an identifier, the telephone number, a mail address, etc. are contained in this information. Although the input of these items is a little complicated, it is performed by pushing the carbon button of a cellular phone, and can also input the kanji using kana kanji converter ability.
[0004] The data (it is henceforth called telephone directory data) memorized by the telephone directory are a thing indispensable to utilization of a cellular phone in this way, and the importance is increasing.
[0005] Some amelioration is proposed in order to raise the convenience of the telephone directory of such a cellular phone further.
[0006] For example, in the "radio communication equipment" of JP,11-191816,A, the telephone directory database in the existing personal computer communication network is accessed, and the radio communication equipment with which the desired telephone number can be searched is indicated. The service (here retrieval of the telephone number) which the personal computer communication network offers can be used without starting the specific communication software linked to a personal computer communication network by this.
[0007]
[Problem(s) to be Solved by the Invention] When the telephone directory of a cellular phone has been lost in a user's inattention etc., or when changing the model of cellular phone, in order to use the telephone directory again, I hear that the first technical problem about the telephone directory of such a cellular phone must redo from 1 the complicated input mentioned above, and it occurs.
[0008] In such a case, the telephone directory concerned is saved in advance in somewhere else, and the method of downloading to a cellular phone if needed is proposed.
[0009] For example, in "the telephone directory data registration approach, communication terminal, and record medium" of JP,2000-124985,A, telephone directory data are uploaded in the center on the Internet from a personal computer, it is required from a center or cellular-phone side, and the method of transmitting said telephone directory data to a cellular phone is indicated. However, by this approach, a personal computer is required and the user who does not have the personal computer cannot use easily.
[0010] Moreover, by "the electronic mail system and approach" of JP,11-136280,A, the user saves the address book of the mail used in a personal computer etc. in the server on networks, such as the Internet, and when a user is going to transmit e-mail, the system which accesses the address book and can acquire a desired mail address is offered. However, this system aims at common use of only a mail address, and cannot be used about the telephone directory of a cellular phone.
[0011] The second technical problem is that the permission or denial of arrival of the mail is judged after a cellular phone receives a message actually. In the present cellular phone, when there is arrival from the telephone number usually registered into the telephone directory for carrying out arrival-of-the-mail refusal, it has the function in which the arrival is refusable.
[0012] If there is a telephone directory the exchange and within the net [ cellular-phone ], arrival-of-the-mail permission or denial can be judged without using the resource of a communication path including a cellular phone, a base station, etc. of the destination. Although it is small if useless utilization of such a resource is seen about one cellular phone, waste of the whole will become huge and will bring a result to which other cellular phones narrow available bandwidth by the end of today when millions of sets of cellular phones have spread.

[0013] The third technical problem is that the arrival of possible mail is unrefusable with a cellular phone, as arrival of a telephone is refused. Now, mail of various gestalten can be used in a cellular phone. However, there is no function in which the arrival of the mail from the mail address beforehand registered about these mails is refused anywhere, on a communication path including the cellular phone itself.
[0014] Although the mail address which a user uses is held on the server on a network in the system of JP,11-136280,A mentioned above, it does not have the function in which the arrival of e-mail is refused using it.
[0015]
[Means for Solving the Problem] Therefore, in order to solve the first technical problem of the above, with the directions from a cellular phone, this invention uploads telephone directory data to the server arranged in a cellular phone business operator's telephone network, and downloads them to a cellular phone if needed. Let this invention be the object of upload of only the newly edited entry in order to stop the amount of data of upload.
[0016] Moreover, in order to solve the second technical problem of the above, when it is in the telephone directory data and there is arrival of the mail from the telephone number which specifies arrival-of-the-mail refusal using the telephone directory data saved at the server arranged in said cellular phone business operator's telephone network, this invention is constituted, without transmitting a call-in demand to a cellular phone via a base station etc. so that arrival-of-the-mail refusal may be performed within the telephone network concerned.
[0017] Furthermore, in order to solve the third technical problem of the above, this invention is in the telephone directory data using the telephone directory data saved at the server arranged in said cellular phone business operator's telephone network, and when e-mail has been transmitted from the mail address which specifies arrival-of-the-mail refusal, it is constituted, without transmitting the content to a base station etc. so that arrival-of-the-mail refusal may be performed within the telephone network concerned.
[0018] In the telephone directory managerial system of the cell phone unit with which the first embodiment of this invention records a personal telephone directory, and the cellular phone containing the server in which said cell phone unit and communication link are possible A transmitting directions means by which said server is arranged on a predetermined network and said cell phone unit directs that the data of said personal telephone directory transmit to said server, Said transmitting directions are answered, and it is constituted so that it may have a data upload means to upload the data of said personal telephone directory to said server by wireless.





[0019] In said first embodiment, the second embodiment of this invention is constituted so that it may have a restoration directions means to direct that said cell phone unit restores the data of said personal telephone directory saved at said server, and a data download means to answer said restoration directions and to download the data of said personal telephone directory from said server by wireless. This enables it to return to the original condition promptly, when the user changed the model of cellular phone, or when the data of a telephone directory have been disappeared by the failure.

[0020] In said first embodiment, the third embodiment of this invention has the update flag which shows whether said personal telephone directory was changed after the content of the range uploaded for every predetermined range before, and it is constituted so that said data upload means may set only the range which had modification after former upload as the object of upload with reference to said update flag. Since only a changed part is transmitted to a telephone directory server on the occasion of preservation of telephone directory data by this, the synchronization of both telephone directory data can be taken by the slight transfer amount of data and slight time amount.
[0021] The fourth embodiment of this invention is set in said first embodiment. Said personal telephone directory Record two or more telephone numbers and it has the arrival-of-the-mail permission-or-denial flag with which said cell phone unit shows whether the telephone from the telephone number is received for every telephone number. It has the exchange to which said cellular-phone system connects the telephone equipment and said cell phone unit of further others. Said exchange said -- others -- the case where call origination is in said cell phone unit from telephone equipment -- being concerned -- others -- said arrival-of-the-mail permission-or-denial flag in said personal telephone directory corresponding to the telephone number of telephone equipment -- being based -- said -- others -- it is constituted so that it may judge whether telephone equipment is connected to said cell phone unit. While becoming possible to process conventionally decision of the arrival-of-the-mail authorization and refusal which was being performed by the cellular-phone side within the net [ cellular-phone ] by this and mitigating the load in a cellular phone, the traffic between a cellular phone and a cellular-phone network can be made to mitigate.
[0022] The fifth embodiment of this invention is set in said first embodiment. Said cell phone unit further by wireless Have an e-mail receiving means to receive e-mail, and said personal telephone directory records two or more mail addresses. It has the e-mail arrival permission-or-denial flag with which said cell phone unit shows whether the mail from the mail address is

received for every mail address. It has the mail server by which said cellular-phone system distributes mail of further addressing to said cell phone unit to said cell phone unit. Said mail server When the mail addressed to said cell phone unit is received, it is constituted so that it may judge whether the mail concerned is distributed to said cell phone unit based on said e-mail arrival permission-or-denial flag in said personal telephone directory corresponding to the transmitting agency mail address of the mail concerned. While becoming possible to process the objection of the unnecessary mail which was not able to be realized in a cellular phone within the net [ cellular-phone ] and mitigating the processing load of a cellular phone conventionally by this, the traffic between a cellular phone and a cellular-phone network can be made to mitigate.

[0023]

[Embodiment of the Invention] Drawing 1 is the functional block diagram showing the configuration of a general cellular phone. The cellular phone 10 includes the display means 11, the input means 12, the storage means 13, the data transceiver means 14, and the voice-input/output means 15.

[0024] The display means 11 displays the various statuses about the telephone directory edit display explained later, the condition under call, and a cellular phone.

[0025] The input means 12 contains the figure carbon buttons from 0 to 9, the hook carbon button, the menu display carbon button, the direction directions carbon button, etc. A figure carbon button is used in order to input the telephone number, in case it mainly telephones. Also when registering the identifier of the kanji into a telephone directory, it is used combining these carbon buttons. Moreover, a direction directions carbon button is used for actuation of scroll directions, scrolling of an item, etc.

[0026] The storage means 13 is used for memorizing data, such as telephone directory data, the status of a cellular phone, and voice data.

[0027] The data transceiver means 14 transmits them to the target node via the base station (BS) connected to the antenna of a cellular phone, and the cellular-phone network, after carrying out modulation processing of the data from a cellular phone. On the contrary, the data transmitted to the cellular phone are transmitted to a cellular phone in the path of having mentioned above and reverse, and with the data transceiver means 14, a cellular phone receives the data and performs recovery processing. When data here are voice data, the same function as the conventional telephone will be achieved.

[0028] Transmission and reception of the data which included text other than voice in recent years are possible. Such text is memorized by the storage means 13 and displayed on the display means 11 if needed. The typical examples of transmission and reception of the text in a cellular phone are





e-mail and a web.

[0029] The voice-input/output means 15 is usually equipped with the microphone as a voice input means, and the loudspeaker as a voice output means. These are used when considering conversation as a partner mainly with a cellular phone.

[0030] Next, with reference to drawing 2 , the telephone directory data 20 memorized by the storage means 13 are explained. The telephone directory data 20 have some information to every identifier (call partner) like the address book of e-mail. The typical example for which this telephone directory data 20 is used is a time of telephoning. First, the user of a cellular phone makes the display means 11 indicate the identifier registered into this telephone directory data 20 by list, and specifies the partner who wants to telephone as it using a direction directions carbon button etc. Next, a hook carbon button (on hook) is pushed in the condition, and it telephones. By this, a user can specify the telephone number registered into the telephone directory data 20 in advance as a cellular phone by one-touch, without striking a carbon button.

[0031] An example of the telephone directory data 20 is shown in drawing 2 . Here, the telephone directory data 20 have each item of an identifier, a reading kana, the telephone number, a mail address, and a group. Therefore, in case telephone directory data are displayed, the display means 11 can be made to display according to the order of a reading kana of an identifier, and a group, and a user's convenience is raised for it. The information about Taro and Hanako is registered there by the telephone directory data 20 of drawing 2 , having used a friend's group as G1. G2 is a firm-related group and the information about A company and B company is registered.

[0032] If "e-mail creation" is chosen with a menu after containing the mail address and specifying a partner on the display means 11 for example, the edit display of e-mail will be displayed on the telephone directory data 20 by making the mail address into the destination.

[0033] Various items can be included in the telephone directory data 20 besides the item shown in drawing 2 .

[0034] Next, the first operation gestalt of this invention is explained. The first operation gestalt of this invention saves the telephone directory data of a cellular phone at the server of a cellular-phone screen oversize, and performs restoration from there at the time of model modification and a failure.

[0035] The configuration of the first operation gestalt of this invention is explained with reference to drawing 3 . The first operation gestalt of this invention consists of replica telephone directory data 40 saved according to a user in a user's cellular phone 10, the telephone directory data 20 memorized in the storage means 13 of the cellular phone, the telephone

directory server 30 installed in a cellular phone business operator's telephone network, and its server.

[0036] A cellular phone 10 is a cellular phone with data communication facility as shown in drawing 1 . The cellular phone 10 is recording the telephone directory data 20 on the interior, and a user is a cellular-phone simple substance, or it is connecting by an external device, external cables, etc., such as a personal computer, and it is possible to edit the content of the telephone directory data 20 freely.

[0037] As shown in drawing 2 , the telephone directory data 20 memorized the individual of hundreds of affairs and thousands of affairs, and the firm, and have memorized an identifier, the telephone number, etc. about each.

[0038] The telephone directory server 30 was installed in a cellular phone business operator's telephone network, and has saved and managed the replica telephone directory data 40. The replica telephone directory data 40 are what gathered each user's telephone directory data 20, and include the respectively same information as the telephone directory data 20.

[0039] Next, actuation of this operation gestalt is explained to a detail with reference to drawing 4 and drawing 5 .

[0040] A user edits the telephone directory data 20 in his cellular phone 10 by the telephone directory edit display displayed on the display means 11 (step S01 of drawing 4 ). A user edits about each item displayed on the telephone directory edit display using input means, such as a carbon button.

[0041] Next, since the edited telephone directory data 20 are saved at the telephone directory server 30 which a cellular phone business operator offers, a user directs to save the telephone directory data 20 in the center from a telephone directory management screen (step S02). After a cellular phone 10 adds predetermined modulation processing to the telephone directory data 20 by carrying out this actuation, it transmits to the telephone directory server 30 via an antenna and a base station.

[0042] In this case, although the content of a display of the telephone directory management screen displayed on the display means 11 of a cellular phone 10 is shown in drawing 5 A, when a user specifies and chooses the item of "saving in the ** center" using a direction directions carbon button etc., the transmitting processing to the center of the telephone directory data 20 is started.

[0043] The telephone directory server 30 receives the telephone directory data 20 (step S03), and makes the data reflect in the part of the applicable user of the replica telephone directory data 40 (step S04). The replica telephone directory data 40 contain the content of the telephone directory data 20 for every user, as mentioned above.

[0044] A transfer of the telephone directory data 20 can also be performed using other standard protocols and an original protocol, although it is common to be carried out using packet communications protocols, such as WAP (Wireless Application Protocol).

[0045] If renewal of the data to the replica telephone directory data 40 is completed, the telephone directory server 30 will notify the purport which the renewal of data completed to a cellular phone 10 (step S05).

[0046] Next, a cellular phone 10 displays the purport by which the telephone directory data 20 were saved at the telephone directory server 30 (as some replica telephone directory data 40) in response to it (step S06). The content of the telephone directory management screen at this time is shown in drawing 5 B.

[0047] Moreover, the item of an "update flag" other than the item of the telephone directory data 20 mentioned above about drawing 2 is established, and when the update flag of the entry which had modification at the time of edit of the telephone directory data 20 is set to 1 (ON), the update flag should transmit [ only the thing of 1 ] the transfer to the telephone directory server 30 mentioned above. Only the data of an entry with modification will be transmitted by this and the transfer amount of data is stopped to the minimum. In addition, if the data of the entry of 1 are saved for an update flag at the telephone directory server 30, the update flag concerned in the telephone directory data 20 will be set to 0 (off).

[0048] Next, a user explains the telephone directory data 20 in his cellular phone 10 with reference to drawing 5 and drawing 6 about the case where it restores from the telephone directory server 30 which a cellular phone business operator offers. A user directs restoration of the telephone directory data 20 to the telephone directory server 30 from his cellular phone 10 (step S11 of drawing 6 ). Although the content of a display of the telephone directory management screen in this case is shown in drawing 5 A, when a user specifies and chooses the item of "restoring from ** center" using a direction directions carbon button etc., the restoration processing from the telephone directory server 30 is started.

[0049] If the telephone directory server 30 receives the directions from a cellular phone 10 (step S12), from the replica telephone directory data 40, it will extract a corresponding user's telephone directory data (step S13), and will transmit it to a cellular phone 10 (step S14). The protocol used here may be the same as the protocol used for preservation of the telephone directory data 20 mentioned above.

[0050] A cellular phone 10 restores the telephone directory data 20 in response to the transmission from the telephone directory server 30 (step S15) (step S16). In addition, the update flag of all the entries of the restored telephone directory data 20 is set to 0.

[0051] In this way, if the restoration processing from the telephone directory data 30 is completed, a message like drawing 5 C will be shown in the

telephone directory management screen displayed on the display means 11 of a cellular phone 10, and it will tell that restoration processing was completed.

[0052] As mentioned above, although the telephone directory server 30 is installed in the cellular-phone screen oversize of the agreement cellular phone business operator of a cellular phone, in the first operation gestalt of this invention, it may be installed on other networks connected to this cellular-phone network like the Internet. In that case, the telephone directory data 20 are transmitted to the network which has the telephone directory server 30 via a cellular-phone network from a cellular phone.

[0053] However, like the first operation gestalt of this invention, when the telephone directory server 30 is installed in the cellular-phone screen oversize concerned, since it is not necessary to prepare a node with the exterior, the consolidation in respect of security is attained, and there is a merit that it can provide in one with the conventional offer service as a cellular phone business operator's service.

[0054] Moreover, since the replica telephone directory data 40 are the aggregate of many users' telephone directory data 30, when there is a demand of the restoration processing from one user, they must identify the telephone directory data of the user concerned out of the replica telephone directory data 40 using the user's telephone number. When downloading telephone directory data in a model new when the user changes the entrepreneur of a cellular phone, though it is the same user, since the telephone numbers differ, it becomes a problem.

[0055] In this case, it is desirable by using the combination of an address and a name or preparing other identification numbers to take out the telephone directory data of the user concerned out of the replica telephone directory data 40.

[0056] Next, the second operation gestalt of this invention is explained. The second operation gestalt of this invention tends to judge refusal of arrival of the mail in the server about the telephone the cellular phone concerned was telephoned from other telephones by saving the telephone directory data used with a cellular phone at the telephone directory server of a cellular-phone screen oversize.

[0057] The configuration of the second operation gestalt of this invention is explained with reference to drawing 7 . The second operation gestalt of this invention consists of cellular-phone 160a which telephones the exchange 150 which manages a actual call with reference to the telephone directory server 130 installed in a user's cellular phone 110, the telephone directory data 120 of the interior, and a cellular phone business operator's telephone network, the replica telephone directory data 140 saved in the server, and its replica telephone directory data 140, and a cellular phone 110, and telephone 160b.





[0058] Although the telephone directory data 120 and the replica telephone directory data 140 are equivalent to said the first telephone directory data 20 and replica telephone directory data 40 of an operation gestalt, respectively, when there is a telephone from the telephone number of the entry further as an item, it has the arrival-of-the-mail permission-or-denial flag which shows whether arrival of the mail is permitted (un-illustrating). If this flag is 1 (ON), the arrival from the partner of that entry will be received, and if it is 0 (off), arrival from the partner of that entry will not be received.

[0059] Moreover, said arrival-of-the-mail permission-or-denial flag of the partner in whom a user does not want to edit the telephone directory data 120 into and to receive a telephone in a cellular phone 110 is set to 0, and the content of the edited telephone directory data 120 concerned is reflected in the first place [ of this invention mentioned above ] by the replica telephone directory data 140 here based on an operation gestalt.

[0060] Although a cellular phone 110 and the telephone directory server 130 are the same as that of the first operation gestalt mentioned above, the processing about the arrival-of-the-mail permission-or-denial flag mentioned above is added, respectively.

[0061] When the exchange 150 has arrival of the mail from other cellular-phone 160a or telephone 160b to a user's cellular phone 110, it connects the connection to a cellular phone 110.

[0062] Cellular-phone 160a is the usual cellular phone with the advice function of a number which does not ask a cellular phone business operator. Moreover, telephone 160b is a telephone with the advice function of a number which points out telephones other than a cellular phone, for example, is in a home and which was connected to the dial-up line.

[0063] Next, actuation of this example is explained to a detail with reference to drawing 8 .

[0064] First, if other cellular-phone 160a and telephone 160b dial to a user's cellular phone 110 (step S21 of drawing 8 ), a call request will be sent to the exchange 150 (step S22). The check of whether to receive the call in from the telephone is required from the telephone directory server 130 by which the carrier beam exchange 150 was installed in (step S23) and a cellular phone business operator's telephone network in the demand (step S24).

[0065] Next, it is that the carrier beam telephone directory server 130 searches the content of (step S25) and the replica telephone directory data 140 for the demand, and judges whether the arrival is permitted (step S26). From a partner's telephone number, the entry to which it corresponds in the replica telephone directory data 140 is specified, and, specifically, the arrival-of-the-mail permission-or-denial flag of the entry judges 1 or 0. If it is 1, arrival of the mail will be permitted, and if it is 0, arrival of the mail will be refused.

[0066] Here, when judged with arrival of the mail being permitted, this judgment result is returned to the exchange 150 (step S27), and, as for the carrier beam exchange 150, a call in is required for it from the cellular phone 110 of the destination (step S28).
[0067] Next, it receives the demand (step S29), and from the telephone directory data 120, a cellular phone 110 acquires the information about call origination origin (step S30), and according to it, a ringer tone is sounded or it displays an identifier on a screen (step S31).
[0068] When a user receives the call (step S32), it notifies that the carrier beam exchange 150 (step S33) sounded ringing tone to cellular-phone 160a or telephone 160b of call origination origin, and the call was successful in the response. It is the same as the call control of the usual telephone after it.
[0069] By the telephone directory data 120 of a user's cellular phone 110, since the content is reflected also in the replica telephone directory data 140 when having set up so that the call in from the partner may not be received, in step S27, the telephone directory server 130 notifies call-in failure to the exchange 150. What busy tone was sounded from step S29 to call origination origin in step S34 as the result instead of the processing at the time of call-in authorization of S33 as call-in refusal, and the call went wrong is notified.
[0070] When there is no telephone number of the telephone which performed call origination into the telephone directory data 120 and the replica telephone directory data 140, whether it treats as arrival-of-the-mail refusal or it treats as arrival-of-the-mail authorization need to determine in advance. In this invention, which can also be chosen and it can also set up for every user.
[0071] Moreover, like the first operation gestalt of this invention, although the telephone directory server 130 is installed in the cellular-phone screen oversize of the agreement cellular phone business operator of a cellular phone, it may be installed on other networks connected to this cellular-phone network like the Internet.
[0072] However, as the first operation gestalt of this invention explained, one-fullness of the consolidation in respect of a curie tee and service of a cellular phone business operator is achieved by installing the telephone directory server 130 in the cellular-phone screen oversize concerned.
[0073] Next, the third operation gestalt of this invention is explained. The gestalt of the third operation tends to judge the permission or denial of the arrival of the mail sent towards a cellular phone from other telephones, a personal computer, etc. by saving the telephone directory data used with a cellular phone at the server of a cellular-phone screen oversize.
[0074] When drawing 9 is referred to, the third example of this invention The telephone directory server 230 installed in a user's cellular phone 210, the





telephone directory data 220 of the interior, and the telephone network in a cellular phone business operator, the replica telephone directory data 240 saved in the server, and its replica telephone directory data 240 are referred to. It consists of a cellular phone 260 in the mail server 270 which manages actual e-mail distribution, and the same cellular phone business operator who transmits e-mail to a cellular phone 210, and mail servers 280 other than the cellular phone business operator.
[0075] Although the telephone directory data 220 and the replica telephone directory data 240 are equivalent to the first telephone directory data 20 and replica telephone directory data 40 of an operation gestalt, respectively, it has the e-mail arrival permission-or-denial flag which shows whether the arrival of the mail from the mail address of the entry is permitted as a new item (un-illustrating). If this flag is 1 (ON), the mail from the partner of that entry will be received, and if it is 0 (off), the mail from the partner of that entry will be refused.
[0076] Moreover, said e-mail arrival permission-or-denial flag of the partner a user does not want to edit the telephone directory data 220 and to receive e-mail in a cellular phone 210 is set to 0, and the content of the edited telephone directory data 220 concerned is reflected in the first place [ of this invention mentioned above ] by the replica telephone directory data 240 here based on an operation gestalt.
[0077] About the cellular phone 210 and the telephone directory server 230, although it is the same as that of the thing in the second operation gestalt fundamentally, as mentioned above, the processing about an e-mail arrival permission-or-denial flag etc. is added, respectively.
[0078] When a mail server 270 has the mail from the mail server 280 which distributes the mail from other cellular phones 260 and outside to the mail address assigned to a user's cellular phone 210, it distributes the mail to a cellular phone 210.
[0079] Here, for convenience, although a mail server 270 expresses the mail to a cellular phone 210 systematically as a thing of explanation to distribute to a cellular phone 210, there are various things in the approach a cellular phone receives e-mail, in practice. One is a download type and it has the push type which transmits e-mail to a target on the other hand from a mail server at a cellular phone, and the pull mold with which a cellular phone goes e-mail for reading to a mail server. Another is a Web mail type and a cellular phone is a type which looks at the mail which is in a mail server by the browser. Moreover, although mail like short mail is the so-called direct delivery mold which does not go via a mail server, it can apply this invention by checking, before sending to the cellular phone of the destination in cellular-phone within the net also about such mail.
[0080] A cellular phone 260 is a cellular phone belonging to the same cellular

phone business operator as a cellular phone 210 which has an e-mail transmitting function.

[0081] A mail server 280 is a mail server which other cellular phone business operators and an Internet access provider offer, and distributes e-mail to the mail server 270 of a cellular-phone screen oversize of a cellular phone 210. Generally a mail server 280 is arranged on the Internet, and is mutually connected with the cellular-phone network of a cellular phone 210 by a certain cellular phone.

[0082] Next, actuation of this example is explained to a detail with reference to drawing 10 .

[0083] To a user's cellular phone 210, other cellular phones 260 and the external mail server 280 tend to perform a mail delivery via a mail server 270, and try connection to the mail server 270 concerned (step S41 of drawing 10 ) (step S42).

[0084] The mail server 270 which received the connection is asked to the telephone directory server 230 in order to check whether (step S43) and its mail are received (step S44). When the inquiry is received (step S45), it checks whether the transmitting origin of the mail is memorized as a mail address in the replica telephone directory data 240 and the address exists, the telephone directory server 230 checks an e-mail arrival permission-or-denial flag, and judges whether the mail from the addresser of the mail is received (step S46).

[0085] If said corresponding e-mail arrival permission-or-denial flag is 1 as above-mentioned, a mail delivery will be accepted, and distribution will be refused if it is 0.

[0086] If this result is returned to a mail server 270 (step S48) and a mail delivery is received, arrival of that mail will be notified to a cellular phone 210 (steps S49 and S50). A cellular phone 210 acquires the information about the addresser from the telephone directory data 220, and according to it, a ringer tone is sounded or it displays an identifier on a screen (step S51).

[0087] When having set up so that the mail from the addresser may not be received, in step S48, a mail server 270 notifies a distribution error to a cellular phone 260 or a mail server 280.

[0088] When the transmitting agency address of e-mail does not exist as a mail address in the telephone directory data 220 and the replica telephone directory data 240, whether the arrival of the mail is refused needs to determine in advance. In this invention, which can also be chosen and it can also set up for every user.

[0089] Moreover, for a start [ of this invention ], like the second operation gestalt, although the telephone directory server 230 is installed in the cellular-phone screen oversize of the agreement cellular phone business operator of a cellular phone, it may be installed on other networks connected





to this cellular-phone network like the Internet. However, one-fullness of the consolidation in respect of a curie tee and service of a cellular phone business operator is achieved like the second operation gestalt for a start [ of this invention ] by installing the telephone directory server 230 in the cellular-phone screen oversize concerned.

[0090]

[Effect of the Invention] Therefore, with the first operation gestalt of this invention, in order to enable preservation of the telephone directory data 20 and restoration, when the user changed the model of cellular phone, or when the data of a telephone directory have been disappeared by the failure, it becomes possible to return to the original condition promptly. Moreover, since only a changed part is transmitted to the telephone directory server 30 on the occasion of preservation, the synchronization of both telephone directory data can be taken by the slight transfer amount of data and slight time amount.

[0091] Furthermore, while becoming possible to process conventionally decision of the arrival-of-the-mail authorization and refusal which was being performed by the cellular-phone side within the net [ cellular-phone ] and mitigating the load in a cellular phone, the traffic between a cellular phone and a cellular-phone network can be made to mitigate with the second operation gestalt of this invention.

[0092] Furthermore, while becoming possible to process the objection of the unnecessary mail which was not able to be realized within the net [ cellular-phone ] and mitigating the processing load of a cellular phone, the traffic between a cellular phone and a cellular-phone network can be made to mitigate with a cellular phone conventionally.

---

[Translation done.]

## TECHNICAL FIELD

[Field of the Invention] It transmits to the server which a cellular phone business operator provides with said telephone directory data in more detail using the data communication facility with which a cellular phone is equipped about the system which saves at a server the telephone directory data built in the cellular phone, and this invention relates to a manageable system so that the synchronization of both data may be taken after that.

[Translation done.]

---

## PRIOR ART

---

[Description of the Prior Art] The number of users of a cellular phone has been increasing explosively in the past several years. Moreover, advanced features of a cellular phone also progress in connection with this, and, generally the telephone directory which can record many the telephone numbers and mail addresses is built in.
[0003] A telephone directory can record information about very many individuals, firms, etc., such as what 100 affairs and what 1000 affairs, by the end of today. Moreover, an identifier, the telephone number, a mail address, etc. are contained in this information. Although the input of these items is a little complicated, it is performed by pushing the carbon button of a cellular phone, and can also input the kanji using kana kanji converter ability.
[0004] The data (it is henceforth called telephone directory data) memorized by the telephone directory are a thing indispensable to utilization of a cellular phone in this way, and the importance is increasing.
[0005] Some amelioration is proposed in order to raise the convenience of the telephone directory of such a cellular phone further.
[0006] For example, in the "radio communication equipment" of JP,11-191816,A, the telephone directory database in the existing personal computer communication network is accessed, and the radio communication equipment with which the desired telephone number can be searched is indicated. The service (here retrieval of the telephone number) which the personal computer communication network offers can be used without starting the specific communication software linked to a personal computer communication network by this.

---

[Translation done.]

## EFFECT OF THE INVENTION

[Effect of the Invention] Therefore, with the first operation gestalt of this invention, in order to enable preservation of the telephone directory data 20 and restoration, when the user changed the model of cellular phone, or when the data of a telephone directory have been disappeared by the failure, it becomes possible to return to the original condition promptly. Moreover, since only a changed part is transmitted to the telephone directory server 30 on the occasion of preservation, the synchronization of both telephone directory data can be taken by the slight transfer amount of data and slight time amount.

[0091] Furthermore, while becoming possible to process conventionally decision of the arrival-of-the-mail authorization and refusal which was being performed by the cellular-phone side within the net [ cellular-phone ] and mitigating the load in a cellular phone, the traffic between a cellular phone and a cellular-phone network can be made to mitigate with the second operation gestalt of this invention.

[0092] Furthermore, while becoming possible to process the objection of the unnecessary mail which was not able to be realized within the net [ cellular-phone ] and mitigating the processing load of a cellular phone, the traffic between a cellular phone and a cellular-phone network can be made to mitigate with a cellular phone conventionally.

[Translation done.]

* NOTICES *

**JPO and NCIPI are not responsible for any damages caused by the use of this translation.**

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

---

TECHNICAL PROBLEM

---

[Problem(s) to be Solved by the Invention] When the telephone directory of a cellular phone has been lost in a user's inattention etc., or when changing the model of cellular phone, in order to use the telephone directory again, I hear that the first technical problem about the telephone directory of such a cellular phone must redo from 1 the complicated input mentioned above, and it occurs.
[0008] In such a case, the telephone directory concerned is saved in advance in somewhere else, and the method of downloading to a cellular phone if needed is proposed.
[0009] For example, in "the telephone directory data registration approach, communication terminal, and record medium" of JP,2000-124985,A, telephone directory data are uploaded in the center on the Internet from a personal computer, it is required from a center or cellular-phone side, and the method of transmitting said telephone directory data to a cellular phone is indicated. However, by this approach, a personal computer is required and the user who does not have the personal computer cannot use easily.
[0010] Moreover, by "the electronic mail system and approach" of JP,11-136280,A, the user saves the address book of the mail used in a personal computer etc. in the server on networks, such as the Internet, and when a user is going to transmit e-mail, the system which accesses the address book and can acquire a desired mail address is offered. However, this system aims at common use of only a mail address, and cannot be used about the telephone directory of a cellular phone.
[0011] The second technical problem is that the permission or denial of arrival of the mail is judged after a cellular phone receives a message actually. In the present cellular phone, when there is arrival from the telephone number usually registered into the telephone directory for carrying out arrival-of-the-mail refusal, it has the function in which the arrival is refusable.





[0012] If there is a telephone directory the exchange and within the net [ cellular-phone ], arrival-of-the-mail permission or denial can be judged without using the resource of a communication path including a cellular phone, a base station, etc. of the destination. Although it is small if useless utilization of such a resource is seen about one cellular phone, waste of the whole will become huge and will bring a result to which other cellular phones narrow available bandwidth by the end of today when millions of sets of cellular phones have spread.
[0013] The third technical problem is that the arrival of possible mail is unrefusable with a cellular phone, as arrival of a telephone is refused. Now, mail of various gestalten can be used in a cellular phone. However, there is no function in which the arrival of the mail from the mail address beforehand registered about these mails is refused anywhere, on a communication path including the cellular phone itself.
[0014] Although the mail address which a user uses is held on the server on a network in the system of JP,11-136280,A mentioned above, it does not have the function in which the arrival of e-mail is refused using it.

---

[Translation done.]

* NOTICES *

**JPO and NCIPI are not responsible for any damages caused by the use of this translation.**

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

---

## MEANS

---

[Means for Solving the Problem] Therefore, in order to solve the first technical problem of the above, with the directions from a cellular phone, this invention uploads telephone directory data to the server arranged in a cellular phone business operator's telephone network, and downloads them to a cellular phone if needed. Let this invention be the object of upload of only the newly edited entry in order to stop the amount of data of upload.
[0016] Moreover, in order to solve the second technical problem of the above, when it is in the telephone directory data and there is arrival of the mail from the telephone number which specifies arrival-of-the-mail refusal using the telephone directory data saved at the server arranged in said cellular phone business operator's telephone network, this invention is constituted, without transmitting a call-in demand to a cellular phone via a base station etc. so that arrival-of-the-mail refusal may be performed within the telephone network concerned.
[0017] Furthermore, in order to solve the third technical problem of the above, this invention is in the telephone directory data using the telephone directory data saved at the server arranged in said cellular phone business operator's telephone network, and when e-mail has been transmitted from the mail address which specifies arrival-of-the-mail refusal, it is constituted, without transmitting the content to a base station etc. so that arrival-of-the-mail refusal may be performed within the telephone network concerned.
[0018] In the telephone directory managerial system of the cell phone unit with which the first embodiment of this invention records a personal telephone directory, and the cellular phone containing the server in which said cell phone unit and communication link are possible A transmitting directions means by which said server is arranged on a predetermined network and said cell phone unit directs that the data of said personal telephone directory transmit to said server, Said transmitting directions are





answered, and it is constituted so that it may have a data upload means to upload the data of said personal telephone directory to said server by wireless.
[0019] In said first embodiment, the second embodiment of this invention is constituted so that it may have a restoration directions means to direct that said cell phone unit restores the data of said personal telephone directory saved at said server, and a data download means to answer said restoration directions and to download the data of said personal telephone directory from said server by wireless. This enables it to return to the original condition promptly, when the user changed the model of cellular phone, or when the data of a telephone directory have been disappeared by the failure.

[0020] In said first embodiment, the third embodiment of this invention has the update flag which shows whether said personal telephone directory was changed after the content of the range uploaded for every predetermined range before, and it is constituted so that said data upload means may set only the range which had modification after former upload as the object of upload with reference to said update flag. Since only a changed part is transmitted to a telephone directory server on the occasion of preservation of telephone directory data by this, the synchronization of both telephone directory data can be taken by the slight transfer amount of data and slight time amount.
[0021] The fourth embodiment of this invention is set in said first embodiment. Said personal telephone directory Record two or more telephone numbers and it has the arrival-of-the-mail permission-or-denial flag with which said cell phone unit shows whether the telephone from the telephone number is received for every telephone number. It has the exchange to which said cellular-phone system connects the telephone equipment and said cell phone unit of further others. Said exchange said -- others -- the case where call origination is in said cell phone unit from telephone equipment -- being concerned -- others -- said arrival-of-the-mail permission-or-denial flag in said personal telephone directory corresponding to the telephone number of telephone equipment -- being based -- said -- others -- it is constituted so that it may judge whether telephone equipment is connected to said cell phone unit. While becoming possible to process conventionally decision of the arrival-of-the-mail authorization and refusal which was being performed by the cellular-phone side within the net [ cellular-phone ] by this and mitigating the load in a cellular phone, the traffic between a cellular phone and a cellular-phone network can be made to mitigate.
[0022] The fifth embodiment of this invention is set in said first embodiment. Said cell phone unit further by wireless Have an e-mail receiving means to

receive e-mail, and said personal telephone directory records two or more mail addresses. It has the e-mail arrival permission-or-denial flag with which said cell phone unit shows whether the mail from the mail address is received for every mail address. It has the mail server by which said cellular-phone system distributes mail of further addressing to said cell phone unit to said cell phone unit. Said mail server When the mail addressed to said cell phone unit is received, it is constituted so that it may judge whether the mail concerned is distributed to said cell phone unit based on said e-mail arrival permission-or-denial flag in said personal telephone directory corresponding to the transmitting agency mail address of the mail concerned. While becoming possible to process the objection of the unnecessary mail which was not able to be realized in a cellular phone within the net [ cellular-phone ] and mitigating the processing load of a cellular phone conventionally by this, the traffic between a cellular phone and a cellular-phone network can be made to mitigate.

[0023]

[Embodiment of the Invention] Drawing 1 is the functional block diagram showing the configuration of a general cellular phone. The cellular phone 10 includes the display means 11, the input means 12, the storage means 13, the data transceiver means 14, and the voice-input/output means 15.

[0024] The display means 11 displays the various statuses about the telephone directory edit display explained later, the condition under call, and a cellular phone.

[0025] The input means 12 contains the figure carbon buttons from 0 to 9, the hook carbon button, the menu display carbon button, the direction directions carbon button, etc. A figure carbon button is used in order to input the telephone number, in case it mainly telephones. Also when registering the identifier of the kanji into a telephone directory, it is used combining these carbon buttons. Moreover, a direction directions carbon button is used for actuation of scroll directions, scrolling of an item, etc.

[0026] The storage means 13 is used for memorizing data, such as telephone directory data, the status of a cellular phone, and voice data.

[0027] The data transceiver means 14 transmits them to the target node via the base station (BS) connected to the antenna of a cellular phone, and the cellular-phone network, after carrying out modulation processing of the data from a cellular phone. On the contrary, the data transmitted to the cellular phone are transmitted to a cellular phone in the path of having mentioned above and reverse, and with the data transceiver means 14, a cellular phone receives the data and performs recovery processing. When data here are voice data, the same function as the conventional telephone will be achieved.

[0028] Transmission and reception of the data which included text other than





voice in recent years are possible. Such text is memorized by the storage means 13 and displayed on the display means 11 if needed. The typical examples of transmission and reception of the text in a cellular phone are e-mail and a web.

[0029] The voice-input/output means 15 is usually equipped with the microphone as a voice input means, and the loudspeaker as a voice output means. These are used when considering conversation as a partner mainly with a cellular phone.

[0030] Next, with reference to drawing 2 , the telephone directory data 20 memorized by the storage means 13 are explained. The telephone directory data 20 have some information to every identifier (call partner) like the address book of e-mail. The typical example for which this telephone directory data 20 is used is a time of telephoning. First, the user of a cellular phone makes the display means 11 indicate the identifier registered into this telephone directory data 20 by list, and specifies the partner who wants to telephone as it using a direction directions carbon button etc. Next, a hook carbon button (on hook) is pushed in the condition, and it telephones. By this, a user can specify the telephone number registered into the telephone directory data 20 in advance as a cellular phone by one-touch, without striking a carbon button.

[0031] An example of the telephone directory data 20 is shown in drawing 2 . Here, the telephone directory data 20 have each item of an identifier, a reading kana, the telephone number, a mail address, and a group. Therefore, in case telephone directory data are displayed, the display means 11 can be made to display according to the order of a reading kana of an identifier, and a group, and a user's convenience is raised for it. The information about Taro and Hanako is registered there by the telephone directory data 20 of drawing 2 , having used a friend's group as G1. G2 is a firm-related group and the information about A company and B company is registered.

[0032] If "e-mail creation" is chosen with a menu after containing the mail address and specifying a partner on the display means 11 for example, the edit display of e-mail will be displayed on the telephone directory data 20 by making the mail address into the destination.

[0033] Various items can be included in the telephone directory data 20 besides the item shown in drawing 2 .

[0034] Next, the first operation gestalt of this invention is explained. The first operation gestalt of this invention saves the telephone directory data of a cellular phone at the server of a cellular-phone screen oversize, and performs restoration from there at the time of model modification and a failure.

[0035] The configuration of the first operation gestalt of this invention is explained with reference to drawing 3 . The first operation gestalt of this

invention consists of replica telephone directory data 40 saved according to a user in a user's cellular phone 10, the telephone directory data 20 memorized in the storage means 13 of the cellular phone, the telephone directory server 30 installed in a cellular phone business operator's telephone network, and its server.

[0036] A cellular phone 10 is a cellular phone with data communication facility as shown in drawing 1 . The cellular phone 10 is recording the telephone directory data 20 on the interior, and a user is a cellular-phone simple substance, or it is connecting by an external device, external cables, etc., such as a personal computer, and it is possible to edit the content of the telephone directory data 20 freely.

[0037] As shown in drawing 2 , the telephone directory data 20 memorized the individual of hundreds of affairs and thousands of affairs, and the firm, and have memorized an identifier, the telephone number, etc. about each.

[0038] The telephone directory server 30 was installed in a cellular phone business operator's telephone network, and has saved and managed the replica telephone directory data 40. The replica telephone directory data 40 are what gathered each user's telephone directory data 20, and include the respectively same information as the telephone directory data 20.

[0039] Next, actuation of this operation gestalt is explained to a detail with reference to drawing 4 and drawing 5 .

[0040] A user edits the telephone directory data 20 in his cellular phone 10 by the telephone directory edit display displayed on the display means 11 (step S01 of drawing 4 ). A user edits about each item displayed on the telephone directory edit display using input means, such as a carbon button.

[0041] Next, since the edited telephone directory data 20 are saved at the telephone directory server 30 which a cellular phone business operator offers, a user directs to save the telephone directory data 20 in the center from a telephone directory management screen (step S02). After a cellular phone 10 adds predetermined modulation processing to the telephone directory data 20 by carrying out this actuation, it transmits to the telephone directory server 30 via an antenna and a base station.

[0042] In this case, although the content of a display of the telephone directory management screen displayed on the display means 11 of a cellular phone 10 is shown in drawing 5 A, when a user specifies and chooses the item of "saving in the ** center" using a direction directions carbon button etc., the transmitting processing to the center of the telephone directory data 20 is started.

[0043] The telephone directory server 30 receives the telephone directory data 20 (step S03), and makes the data reflect in the part of the applicable user of the replica telephone directory data 40 (step S04). The replica telephone directory data 40 contain the content of the telephone directory





data 20 for every user, as mentioned above.

[0044] A transfer of the telephone directory data 20 can also be performed using other standard protocols and an original protocol, although it is common to be carried out using packet communications protocols, such as WAP (Wireless Application Protocol).

[0045] If renewal of the data to the replica telephone directory data 40 is completed, the telephone directory server 30 will notify the purport which the renewal of data completed to a cellular phone 10 (step S05).

[0046] Next, a cellular phone 10 displays the purport by which the telephone directory data 20 were saved at the telephone directory server 30 (as some replica telephone directory data 40) in response to it (step S06). The content of the telephone directory management screen at this time is shown in drawing 5 B.

[0047] Moreover, the item of an "update flag" other than the item of the telephone directory data 20 mentioned above about drawing 2 is established, and when the update flag of the entry which had modification at the time of edit of the telephone directory data 20 is set to 1 (ON), the update flag should transmit [ only the thing of 1 ] the transfer to the telephone directory server 30 mentioned above. Only the data of an entry with modification will be transmitted by this and the transfer amount of data is stopped to the minimum. In addition, if the data of the entry of 1 are saved for an update flag at the telephone directory server 30, the update flag concerned in the telephone directory data 20 will be set to 0 (off).

[0048] Next, a user explains the telephone directory data 20 in his cellular phone 10 with reference to drawing 5 and drawing 6 about the case where it restores from the telephone directory server 30 which a cellular phone business operator offers. A user directs restoration of the telephone directory data 20 to the telephone directory server 30 from his cellular phone 10 (step S11 of drawing 6 ). Although the content of a display of the telephone directory management screen in this case is shown in drawing 5 A, when a user specifies and chooses the item of "restoring from ** center" using a direction directions carbon button etc., the restoration processing from the telephone directory server 30 is started.

[0049] If the telephone directory server 30 receives the directions from a cellular phone 10 (step S12), from the replica telephone directory data 40, it will extract a corresponding user's telephone directory data (step S13), and will transmit it to a cellular phone 10 (step S14). The protocol used here may be the same as the protocol used for preservation of the telephone directory data 20 mentioned above.

[0050] A cellular phone 10 restores the telephone directory data 20 in response to the transmission from the telephone directory server 30 (step S15) (step S16). In addition, the update flag of all the entries of the restored

telephone directory data 20 is set to 0.

[0051] In this way, if the restoration processing from the telephone directory data 30 is completed, a message like drawing 5 C will be shown in the telephone directory management screen displayed on the display means 11 of a cellular phone 10, and it will tell that restoration processing was completed.

[0052] As mentioned above, although the telephone directory server 30 is installed in the cellular-phone screen oversize of the agreement cellular phone business operator of a cellular phone, in the first operation gestalt of this invention, it may be installed on other networks connected to this cellular-phone network like the Internet. In that case, the telephone directory data 20 are transmitted to the network which has the telephone directory server 30 via a cellular-phone network from a cellular phone.

[0053] However, like the first operation gestalt of this invention, when the telephone directory server 30 is installed in the cellular-phone screen oversize concerned, since it is not necessary to prepare a node with the exterior, the consolidation in respect of security is attained, and there is a merit that it can provide in one with the conventional offer service as a cellular phone business operator's service.

[0054] Moreover, since the replica telephone directory data 40 are the aggregate of many users' telephone directory data 30, when there is a demand of the restoration processing from one user, they must identify the telephone directory data of the user concerned out of the replica telephone directory data 40 using the user's telephone number. When downloading telephone directory data in a model new when the user changes the entrepreneur of a cellular phone, though it is the same user, since the telephone numbers differ, it becomes a problem.

[0055] In this case, it is desirable by using the combination of an address and a name or preparing other identification numbers to take out the telephone directory data of the user concerned out of the replica telephone directory data 40.

[0056] Next, the second operation gestalt of this invention is explained. The second operation gestalt of this invention tends to judge refusal of arrival of the mail in the server about the telephone the cellular phone concerned was telephoned from other telephones by saving the telephone directory data used with a cellular phone at the telephone directory server of a cellular-phone screen oversize.

[0057] The configuration of the second operation gestalt of this invention is explained with reference to drawing 7 . The second operation gestalt of this invention consists of cellular-phone 160a which telephones the exchange 150 which manages a actual call with reference to the telephone directory server 130 installed in a user's cellular phone 110, the telephone directory data 120





of the interior, and a cellular phone business operator's telephone network, the replica telephone directory data 140 saved in the server, and its replica telephone directory data 140, and a cellular phone 110, and telephone 160b.

[0058] Although the telephone directory data 120 and the replica telephone directory data 140 are equivalent to said the first telephone directory data 20 and replica telephone directory data 40 of an operation gestalt, respectively, when there is a telephone from the telephone number of the entry further as an item, it has the arrival-of-the-mail permission-or-denial flag which shows whether arrival of the mail is permitted (un-illustrating). If this flag is 1 (ON), the arrival from the partner of that entry will be received, and if it is 0 (off), arrival from the partner of that entry will not be received.

[0059] Moreover, said arrival-of-the-mail permission-or-denial flag of the partner in whom a user does not want to edit the telephone directory data 120 into and to receive a telephone in a cellular phone 110 is set to 0, and the content of the edited telephone directory data 120 concerned is reflected in the first place [ of this invention mentioned above ] by the replica telephone directory data 140 here based on an operation gestalt.

[0060] Although a cellular phone 110 and the telephone directory server 130 are the same as that of the first operation gestalt mentioned above, the processing about the arrival-of-the-mail permission-or-denial flag mentioned above is added, respectively.

[0061] When the exchange 150 has arrival of the mail from other cellular-phone 160a or telephone 160b to a user's cellular phone 110, it connects the connection to a cellular phone 110.

[0062] Cellular-phone 160a is the usual cellular phone with the advice function of a number which does not ask a cellular phone business operator. Moreover, telephone 160b is a telephone with the advice function of a number which points out telephones other than a cellular phone, for example, is in a home and which was connected to the dial-up line.

[0063] Next, actuation of this example is explained to a detail with reference to drawing 8 .

[0064] First, if other cellular-phone 160a and telephone 160b dial to a user's cellular phone 110 (step S21 of drawing 8 ), a call request will be sent to the exchange 150 (step S22). The check of whether to receive the call in from the telephone is required from the telephone directory server 130 by which the carrier beam exchange 150 was installed in (step S23) and a cellular phone business operator's telephone network in the demand (step S24).

[0065] Next, it is that the carrier beam telephone directory server 130 searches the content of (step S25) and the replica telephone directory data 140 for the demand, and judges whether the arrival is permitted (step S26). From a partner's telephone number, the entry to which it corresponds in the replica telephone directory data 140 is specified, and, specifically, the

arrival-of-the-mail permission-or-denial flag of the entry judges 1 or 0. If it is 1, arrival of the mail will be permitted, and if it is 0, arrival of the mail will be refused.

[0066] Here, when judged with arrival of the mail being permitted, this judgment result is returned to the exchange 150 (step S27), and, as for the carrier beam exchange 150, a call in is required for it from the cellular phone 110 of the destination (step S28).

[0067] Next, it receives the demand (step S29), and from the telephone directory data 120, a cellular phone 110 acquires the information about call origination origin (step S30), and according to it, a ringer tone is sounded or it displays an identifier on a screen (step S31).

[0068] When a user receives the call (step S32), it notifies that the carrier beam exchange 150 (step S33) sounded ringing tone to cellular-phone 160a or telephone 160b of call origination origin, and the call was successful in the response. It is the same as the call control of the usual telephone after it.

[0069] By the telephone directory data 120 of a user's cellular phone 110, since the content is reflected also in the replica telephone directory data 140 when having set up so that the call in from the partner may not be received, in step S27, the telephone directory server 130 notifies call-in failure to the exchange 150. What busy tone was sounded from step S29 to call origination origin in step S34 as the result instead of the processing at the time of call-in authorization of S33 as call-in refusal, and the call went wrong is notified.

[0070] When there is no telephone number of the telephone which performed call origination into the telephone directory data 120 and the replica telephone directory data 140, whether it treats as arrival-of-the-mail refusal or it treats as arrival-of-the-mail authorization need to determine in advance. In this invention, which can also be chosen and it can also set up for every user.

[0071] Moreover, like the first operation gestalt of this invention, although the telephone directory server 130 is installed in the cellular-phone screen oversize of the agreement cellular phone business operator of a cellular phone, it may be installed on other networks connected to this cellular-phone network like the Internet.

[0072] However, as the first operation gestalt of this invention explained, one-fullness of the consolidation in respect of a curie tee and service of a cellular phone business operator is achieved by installing the telephone directory server 130 in the cellular-phone screen oversize concerned.

[0073] Next, the third operation gestalt of this invention is explained. The gestalt of the third operation tends to judge the permission or denial of the arrival of the mail sent towards a cellular phone from other telephones, a personal computer, etc. by saving the telephone directory data used with a





cellular phone at the server of a cellular-phone screen oversize.

[0074] When drawing 9 is referred to, the third example of this invention The telephone directory server 230 installed in a user's cellular phone 210, the telephone directory data 220 of the interior, and the telephone network in a cellular phone business operator, the replica telephone directory data 240 saved in the server, and its replica telephone directory data 240 are referred to. It consists of a cellular phone 260 in the mail server 270 which manages actual e-mail distribution, and the same cellular phone business operator who transmits e-mail to a cellular phone 210, and mail servers 280 other than the cellular phone business operator.

[0075] Although the telephone directory data 220 and the replica telephone directory data 240 are equivalent to the first telephone directory data 20 and replica telephone directory data 40 of an operation gestalt, respectively, it has the e-mail arrival permission-or-denial flag which shows whether the arrival of the mail from the mail address of the entry is permitted as a new item (un-illustrating). If this flag is 1 (ON), the mail from the partner of that entry will be received, and if it is 0 (off), the mail from the partner of that entry will be refused.

[0076] Moreover, said e-mail arrival permission-or-denial flag of the partner a user does not want to edit the telephone directory data 220 and to receive e-mail in a cellular phone 210 is set to 0, and the content of the edited telephone directory data 220 concerned is reflected in the first place [ of this invention mentioned above ] by the replica telephone directory data 240 here based on an operation gestalt.

[0077] About the cellular phone 210 and the telephone directory server 230, although it is the same as that of the thing in the second operation gestalt fundamentally, as mentioned above, the processing about an e-mail arrival permission-or-denial flag etc. is added, respectively.

[0078] When a mail server 270 has the mail from the mail server 280 which distributes the mail from other cellular phones 260 and outside to the mail address assigned to a user's cellular phone 210, it distributes the mail to a cellular phone 210.

[0079] Here, for convenience, although a mail server 270 expresses the mail to a cellular phone 210 systematically as a thing of explanation to distribute to a cellular phone 210, there are various things in the approach a cellular phone receives e-mail, in practice. One is a download type and it has the push type which transmits e-mail to a target on the other hand from a mail server at a cellular phone, and the pull mold with which a cellular phone goes e-mail for reading to a mail server. Another is a Web mail type and a cellular phone is a type which looks at the mail which is in a mail server by the browser. Moreover, although mail like short mail is the so-called direct delivery mold which does not go via a mail server, it can apply this invention

by checking, before sending to the cellular phone of the destination in cellular-phone within the net also about such mail.

[0080] A cellular phone 260 is a cellular phone belonging to the same cellular phone business operator as a cellular phone 210 which has an e-mail transmitting function.

[0081] A mail server 280 is a mail server which other cellular phone business operators and an Internet access provider offer, and distributes e-mail to the mail server 270 of a cellular-phone screen oversize of a cellular phone 210. Generally a mail server 280 is arranged on the Internet, and is mutually connected with the cellular-phone network of a cellular phone 210 by a certain cellular phone.

[0082] Next, actuation of this example is explained to a detail with reference to drawing 10 .

[0083] To a user's cellular phone 210, other cellular phones 260 and the external mail server 280 tend to perform a mail delivery via a mail server 270, and try connection to the mail server 270 concerned (step S41 of drawing 10 ) (step S42).

[0084] The mail server 270 which received the connection is asked to the telephone directory server 230 in order to check whether (step S43) and its mail are received (step S44). When the inquiry is received (step S45), it checks whether the transmitting origin of the mail is memorized as a mail address in the replica telephone directory data 240 and the address exists, the telephone directory server 230 checks an e-mail arrival permission-or-denial flag, and judges whether the mail from the addresser of the mail is received (step S46).

[0085] If said corresponding e-mail arrival permission-or-denial flag is 1 as above-mentioned, a mail delivery will be accepted, and distribution will be refused if it is 0.

[0086] If this result is returned to a mail server 270 (step S48) and a mail delivery is received, arrival of that mail will be notified to a cellular phone 210 (steps S49 and S50). A cellular phone 210 acquires the information about the addresser from the telephone directory data 220, and according to it, a ringer tone is sounded or it displays an identifier on a screen (step S51).

[0087] When having set up so that the mail from the addresser may not be received, in step S48, a mail server 270 notifies a distribution error to a cellular phone.260 or a mail server 280.

[0088] When the transmitting agency address of e-mail does not exist as a mail address in the telephone directory data 220 and the replica telephone directory data 240, whether the arrival of the mail is refused needs to determine in advance. In this invention, which can also be chosen and it can also set up for every user.

[0089] Moreover, for a start [ of this invention ], like the second operation gestalt, although the telephone directory server 230 is installed in the cellular-phone screen oversize of the agreement cellular phone business operator of a cellular phone, it may be installed on other networks connected to this cellular-phone network like the Internet. However, one-fullness of the consolidation in respect of a curie tee and service of a cellular phone business operator is achieved like the second operation gestalt for a start [ of this invention ] by installing the telephone directory server 230 in the cellular-phone screen oversize concerned.

---

[Translation done.]

* NOTICES *

**JPO and NCIPI are not responsible for any damages caused by the use of this translation.**

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

---

## DESCRIPTION OF DRAWINGS

---

[Brief Description of the Drawings]
[Drawing 1] It is the block diagram showing the general configuration of a cellular phone.
[Drawing 2] It is drawing showing the example of the telephone directory data memorized by the storage means of the cellular phone of drawing 1 .
[Drawing 3] It is drawing showing roughly the first cellular phone and telephone directory server in an operation gestalt of this invention.
[Drawing 4] It is the flow chart which shows preservation actuation of the telephone directory data in the first operation gestalt of this invention.
[Drawing 5] It is drawing showing the content of the telephone directory management screen displayed on the display means of the cellular phone in the first operation gestalt of this invention.
[Drawing 6] It is the flow chart which shows the telephone directory reconstitution-of-data actuation in the first operation gestalt of this invention.
[Drawing 7] It is drawing showing roughly the second cellular phone and telephone directory server in an operation gestalt of this invention.
[Drawing 8] It is the flow chart which shows the actuation in the second operation gestalt of this invention.
[Drawing 9] It is drawing showing roughly the third cellular phone and telephone directory server in an operation gestalt of this invention.
[Drawing 10] It is the flow chart which shows the actuation in the third operation gestalt of this invention.
[Description of Notations]
10,110,160a, 210, 260 Cellular phone
11 Display Means
12 Input Means
13 Storage Means
14 Data Transceiver Means
15 Voice-Input/output Means
20,120,220 Telephone directory data
30,130,230 Telephone directory server
40,140,240 Replica telephone directory data
150 Exchange
160b Telephone
270 280 Mail server

---

[Translation done.]


JP,2002-057807,A [DESCRIPTION OF DRAWINGS] http://www4.ipdl.ncipi.go.jp/cgi-bin/tran_web_cgi_ejje